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A NON-AVIATION SHIP MOTION DATA BASE FOR THE DD 963, CG 26,
FF 1052, FFG 7 AND THE FF 1040 SHIP CLASSES

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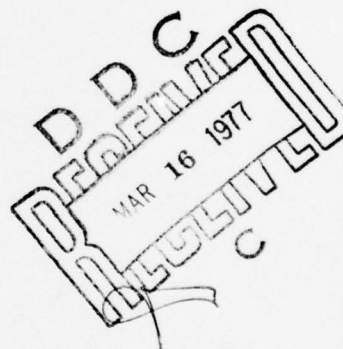
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A NON-AVIATION SHIP MOTION DATA BASE FOR THE DD 963, CG 26,
FF 1052, FFG 7 AND THE FF 1040 SHIP CLASSES

by

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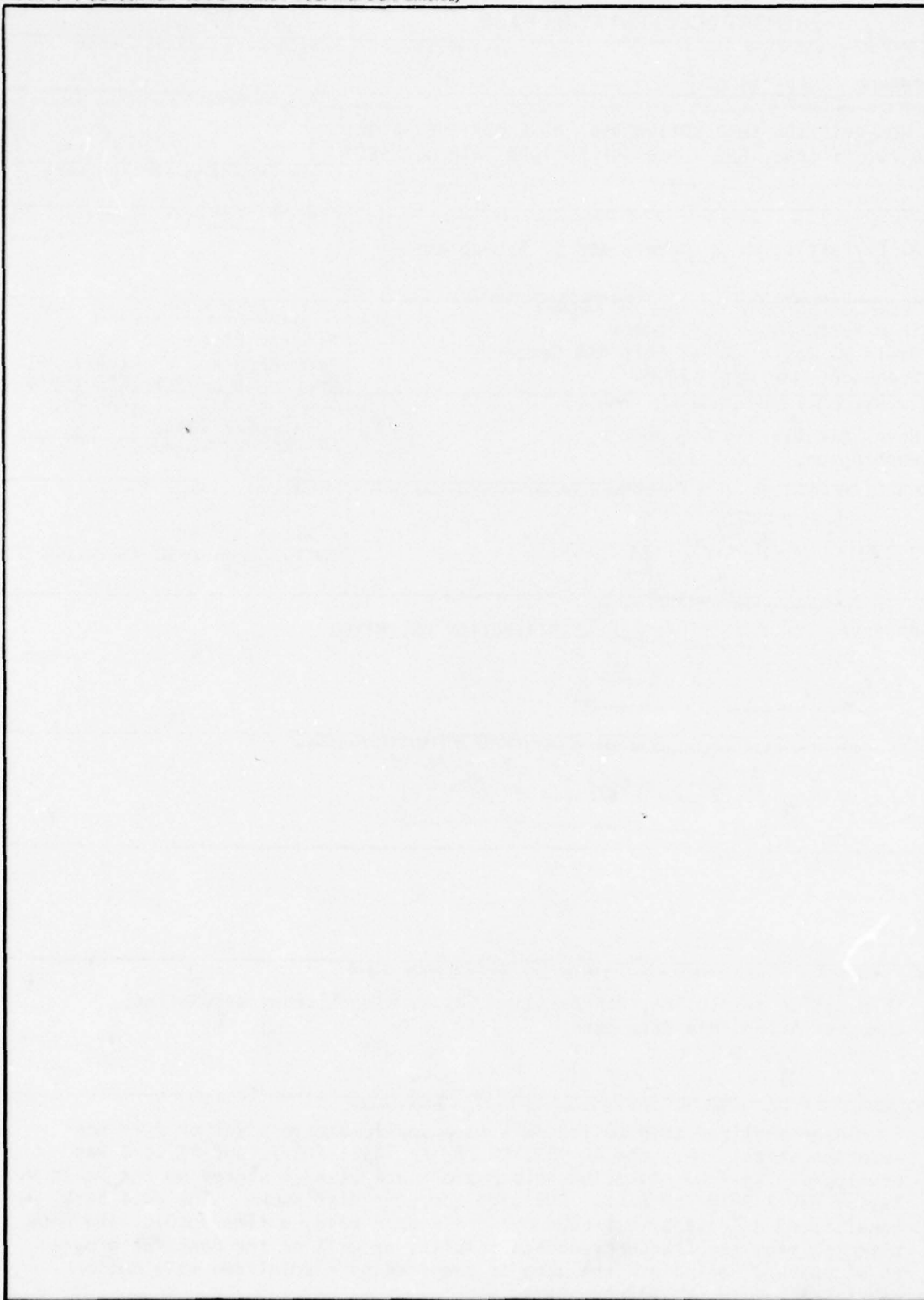
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ABSTRACT

A generalized ship motion data base applicable to a set of five non-aviation ships, i.e., the DD 963, CG 26, FF 1052, FFG 7, and FF 1040 was developed. This Non-Aviation Ship Motion data base is stored on the David W. Taylor Naval Ship R&D Center CDC 6700 computer disk packs. The data base consists of an extensive frequency domain data base, a time domain data base selected from the frequency domain results, as well as the computer program to access and manipulate the data as required by specialized ship motion needs of various NAVAIR programs.

ADMINISTRATIVE INFORMATION

This investigation was authorized by the Naval Air Systems Command (NAVAIR) Program Element 62241N, Task Area Number WF41.421.203 and was performed under Work Unit Number 1-1612-156-01. The task illustrating how a remote user can access the data base was authorized by the Naval Surface Weapons Center Project Order N60921-76-P0-D0349 and was performed under Work Unit Number 1-1568-870-01.

INTRODUCTION

This report presents results of a project initiated by NAVAIR to prevent unnecessary duplication of effort by various NAVAIR programs in the area of ship motions and their implications in aircraft related design. The project provides a generalized ship motion data base to be used in specialized ways as required by any specific NAVAIR program. For example, for ships that are a part of this non-aviation ship motion series, the data can be used as a basic U.S. Navy ship motion specification to which any ship subsystem must be designed. Other data application examples for this type of ship motion data are documented in references 1, 2, 3, 4, and 5.*

The basic time-and cost-consuming calculation steps in generating the ship motion data have been completed, and the results are stored on a series of disk packs at the CDC 6700 computational facility at David W. Taylor Naval Ship R&D Center (DTNSRDC).

Two essentially different procedures to access this data base are envisioned. The first considers that potential users employ the DTNSRDC CDC 6700 either on station or through remote terminals. A detailed example demonstrating this access procedure is provided in the appendices.

The second access procedure, also demonstrated by a specific example, employs digital computer tapes to transmit both the FORTRAN programs required

* A complete list of references is given on page 79.

to manipulate the data and selected portions of the stored ship motion data base.

It is to be noted that all of the ship motion data contained within the Non-Aviation Ship Motion data base were predicted rather than measured. Results are presented in two basic stages. The first stage presents a very extensive, frequency domain, statistical ship motion data base. In fact, the statistical data in this stage presents the responses that are considered to represent the universe of possible responses that may be expected to be encountered during the ship's lifetime. This wide scope of the data base is feasible due to the inherent computational efficiency of such frequency domain predictions. A single ship response, such as roll angle for example, is thus represented by only two numbers per ship/sea condition, i.e., RMS level and T_{OE} , the period associated with the largest response cycles.

The second stage presents the much smaller, less extensive time domain ship motion data base that forms the major portion of the Non-Aviation Ship Motion data base. This time domain data base is of necessity much more limited in the ship/sea condition scope because 3600 points rather than 2 points are required per condition.

For certain ship motion related problems, unfortunately, the wide-ranging statistical ship motion data of stage one is not sufficient. It is true that the statistical RMS ship motion data can be used frequently to establish an upper bound on the responses in question; however, the actual magnitude of such variables can only be sampled accurately in the time domain.

Examples of ship motion related problems that require the more detailed and costly time domain data include generally two body problems such as aircraft landings and takeoffs from flight decks, missiles or projectiles or sensor beams intersecting airborne or waterborne targets, or other problems which involve strongly nonlinear combinations of various ship motion components such as the forces on bodies supported by the ship and restraining loads that involve motion dependent friction forces. Ship motion related problems that fall within the broad category of time interval analysis similarly require time domain ship responses. Time Interval analysis problems are problems where crew work tasks or equipment functions cannot be performed satisfactorily when the joint occurrence of any one or more of several ship motion components exceed specific critical values (say roll > 5 deg, pitch > 2 deg, vertical velocity > 7 ft/sec (2.13 m/sec), vertical acceleration in ship coordinates > 1.0 g, etc.). Finally, the present time history data base provides a rational, comprehensive and controlled set of ship motion data to drive various physical or mathematical ship simulations.

CALCULATION CONDITIONS

GENERAL

Ship motions were predicted for five selected ship classes, i.e., the DD 963, the CG 26, the FF 1052, the FFG 7, and the FF 1040. Typical ship

load conditions were obtained from the Naval Ship Engineering Center (NAVSEC) after consultations with the NAVAIR sponsors. The principal characteristics of these ships as well as the underwater portion of their hulls used as input to the prediction programs are given in Table 1 and Figure 1, respectively.

FREQUENCY DOMAIN

The statistical ship motion data was calculated at three points on the centerline for the five ships, as noted in Table 2. It must be noted that the locations of these points are specified with reference to the keel at the aft perpendicular as well as from the centerline of the ship, as indicated by the coordinate system in the table. The specific locations where responses were calculated are the center of gravity, the aft perpendicular at the main deck, and the center of the painted landing target, i.e., the bullseye.

The calculated responses included roll and pitch angles as well as the longitudinal, lateral and vertical displacements, velocities and accelerations at each of the three points. Results are developed in terms of the per unit significant wave height RMS ship responses and associated periods for five speeds in 5-knot increments from 5 to 25 knots at 13 headings ranging from 180 degrees (head seas) to zero degrees (following seas) in 15-degree increments.

The predictions were made for a total of eight distinct sea spectra* which in turn treated the waves as longcrested or shortcrested. Thus a total of 16 sea conditions were considered.

Since the tabulated results of these rather extensive calculations are voluminous, they were placed on Microfiche and included in this form at the end of the report. The format of the data thus developed is explained briefly in Appendix A. In addition, this data is stored in identical format in BCD files on one of the Non-Aviation Ship Series disk packs.

TIME DOMAIN

The time domain ship responses were calculated for 1/2 hour long random samples which present ship responses in 1/2 second intervals. Responses at smaller time intervals may be obtained by linear interpolation between data points. The number of ship speed calculation conditions was reduced to 5, 10, 20, and 25 knots at 17 longcrested wave headings which permit the generation by the user** of shortcrested ship responses at seven different ship headings ranging from 135 degrees (bow seas) to 45 degrees (quartering seas).

* Calculations were made for a family of Bretschneider⁶ wave spectra having eight different modal wave periods, see section on Calculation Procedures.

** Using the Time History Access Program, THACP, which is provided as part of the access procedure to the data base and for which the listing and documentation is given in Appendix B.

The number of basic sea conditions in the time domain data base was reduced from the eight modal wave periods of the frequency domain ($T_0 = 7, 9, 11, 13, \dots, 21$) to three (7, 11, 19) which cover, though clearly less finely, the same range of sea conditions. Figure 2 illustrates the wave spectra for which the time histories were calculated.

Each half hour calculation condition for a particular ship speed and heading condition thus represents the core of the time domain Non-Aviation Ship Series data base. Such a calculation condition contains three separate sets of data, i.e., one each for the 7, 11, and 19 second modal wave periods. Each data set in turn contains the displacements, velocities, accelerations of the six degree of freedom responses at the origin of the ship motion predictions (18), plus wave height, i.e., a total of 19 correlated time histories of 1/2 hour duration. Thus there are 3×19 or 57 time histories for each calculation condition. The data for such a calculation condition, referred to henceforth as an origin time history file, is obviously extensive and is thus stored on the Non-Aviation Ship Motion Series disk packs. These, in turn, are accessible via the DTNSRDC's CDC 6700 computer in accordance with general procedures given in reference 7, and Appendix B of this report.

It should be noted that these origin time histories can be used to compute shortcrested response time histories of the ship at either the origin or at arbitrary points on the ship using the THACP computer program documented in Appendix B. In addition to the basic 18 channels of ship responses at the origin, THACP can generate the longitudinal, lateral and vertical displacements, velocities, and accelerations at arbitrary points on the ship. THACP can also generate the lateral and normal forces* (F_L, F_N) exerted on objects supported by the ship due to ship motions as well as the lateral and normal shoring loads (S_L, S_N) required to keep a box, resting on the deck, from either sliding or "jumping off" the deck during violent ship motion cycles.

CALCULATION PROCEDURES

PREDICTION COMPUTER PROGRAMS

A series of three basic computer programs were employed to develop the Non-Aviation Ship Motion data base. The first program, designated as SMSL^{8,9}, was employed to calculate the so-called ship Response Amplitude Operators, RAO. These RAOs, in turn, were employed with a program designated as ESPEC to calculate the RMS/ T_{0E} results which form the frequency domain statistical ship motion data base. The theory and equations executed by ESPEC are documented in references 1, 10, and 11.

The time domain data base consisting of longcrested wave ship response time histories in turn were calculated using the RAOs from SMSL with a program designated as LCTH. LCTH employed the theory and equations of references 1 and 12.

* In ship coordinates.

SHIP INPUT PARAMETERS

Additional details regarding the computational process or the theory involved in the generation of this data base are considered to be of little value to the general user and will thus not be provided except in the references. It is considered important, nevertheless, to recognize that the ship motion prediction process requires, in general, a description of the ship and the seaway as an input. The description of the ships in Figure 1 and Tables 1 and 2 suffices to meet the first requirement. It must be noted that the user of this data base cannot alter this description of the ship.*

The predicted results are valid therefore only for the single ship load condition, i.e., displacement, draft, GM, etc., thus specified. A trade-off between performing the predictions for a single ship with five load conditions as opposed to five ships with a single load condition was resolved in favor of the five ships. This does not imply that the differences in the responses due to load variations are insignificant, but rather indicates a limitation in funding. In this context it is noted that the differences in expected responses between the largest and smallest ships in the series are greater than the differences in the load variations for a single ship, see reference 3.

It is noted that the size and cost of the time domain predictions represent the major cost limitation. In retrospect, it might have been wiser to increase the scope of the ship load conditions in the frequency domain at the expense of perhaps five or six minutes of the basic time domain predictions.

SEAWAY INPUT PARAMETERS

The equally important description of the seaway as an input is left under somewhat greater control by the user. The sea conditions that were considered assumed the waves to have either the directional properties common to wind waves, i.e., shortcrested seas, or the directional properties common to swell propagating from distant storms along a single direction, i.e., longcrested waves.

A cosine squared wave energy spreading function was employed to shortcrest the basic longcrested ship responses. Figure 3 was prepared to visually demonstrate the differences between a longcrested and shortcrested sea representation. Consider the longcrested sea to approach the ship at a 105-degree heading with a 1-foot significant wave height. All wave energy thus is approaching the ship at this single heading. If, on the other hand, a 1-foot significant wave height shortcrested sea were to approach the ship at the same predominant 105-degree heading, the synthesized seaway would consist of 11 different wave components with the predominant one at a heading of 105 degrees and the others spread in five 15-degree sectors about this heading. The predominant 105-degree

*Except insofar as the user may employ the time domain data base to calculate responses at points other than just the ones contained in the frequency data base.

wave component would have only a 0.408-foot significant wave height, whereas the 120-degree and the 90-degree wave components would have a 0.394-foot significant wave height, the 135-degree and 75-degree wave components would have a 0.354-foot significant wave height, etc.. Clearly, a ship's responses to these basically different types of seas, both of which occur, are not identical. Thus, it is best to consider the predicted results as being representative of the ranges of ship responses to be expected rather than to concentrate on a single "typical" response.

In both cases, the frequency content of the seas was modeled according to the Bretschneider⁶ wave spectrum formulation for eight distinct wave modal periods ranging from 7 to 21 seconds in 2-second increments. It is noted that the term "modal wave period" refers to periods that correspond to the peak of the wave spectrum in the frequency domain, i.e., the dominant waves in the seaway. This family of eight wave spectra has been found to yield realistic ranges of ship responses both in mild and heavy seas, see references 2 and 13.

A detailed explanation of the seaway model employed in this data base is beyond the scope of this report. Details of this seaway model are contained in reference 5. Basically, the ship responses are assumed to be linear with wave height. Thus, once the per unit significant wave height RMS ship responses are known for a set of unit significant wave height spectra, i.e., $T = 7, 9, 11, \dots, 21$ seconds, the responses of the ship in seas of arbitrary height* whose modal periods fall within this range of periods can be obtained quite simply. The per unit significant wave height RMS ship response for the appropriate modal wave period is simply multiplied by the desired significant wave height in feet. Arbitrary statistical levels of ship responses can then be obtained by multiplying the resulting RMS response by the statistical constants of Table 3. An example to illustrate the process follows.

Assume, for example, that a user requires the responses of a ship in a typical sea state 5. Generally, the significant single amplitude typifies the response of the ship. This response level corresponds to the average of the one third highest amplitudes. It is related to the RMS response by a factor of 2, see Table 3.

Now, to select a typical value of significant wave height in a sea state 5, refer to Table 4. Since the significant wave heights for sea state 5 range from 7.4 to 13 feet, a 10-foot (3 metre) significant wave height then may be considered to be representative of a sea state 5. Thus, given the per unit (ft) significant wave height RMS ship response, the response of the ship $R_{1/3}$ in a typical sea state 5 becomes

$$R_{1/3} = 2 \times 10 \times \text{RMS} \quad (1)$$

* Except for wave heights that at any particular modal wave period result in unrealizable, steep waves.

Since the ships in this series serve on the oceans rather than on land locked lakes, the maximum significant wave height $(\bar{\zeta}_w)_{1/3}$, for which a wave spectrum can be generated are considered to be limited for any particular modal wave period by

$$(\bar{\zeta}_w)_{1/3} = .202 T_o^2 \quad (2)$$

The frequencies with which particular modal wave period, significant wave height combination occur can be approximated on a worldwide basis from Table 5 taken from reference 14 as adapted from references 15 and 16. Similarly, in order to assess the relative importance of ship responses at various levels of significant wave height, Figure 4 also from reference 14 is given.

RESULTS

GENERAL

The Non-Aviation Ship Motion Series data base consists of a frequency domain data base, a time domain data base, and the computer program THACP required to access the time domain data base. The frequency domain data base contains tables of Response Amplitude Operators, RAOs, and tables of RMS/ T_{0E} values for the five ships in the series, the DD 963, CG 26, FF 1052, FFG 7, and the FF 1040. The time domain data base contains 340 files of 1/2 hour duration, longcrested time histories for the same five ships. Both types of data base, frequency and time domain, as well as the THACP program are stored on a set of eight disk packs at the CDC 6700 computational facility at DTNSRDC, see Table 6. The frequency domain RAO and RMS/ T_{0E} tables are also contained on Microfiche included at the end of this report.

It should be noted that at the time these data files were generated, the renaming of the DLG's as CG's and the DE's as FF's had not been officially performed. Thus the old ship designation was employed in labeling the files. In addition, it should be noted that the DE 1078, or properly the FF 1078, is a member of the FF 1052 ship class.

FREQUENCY DOMAIN DATA BASE

RAO

The Response Amplitude Operators, or RAOs, are characteristic functions which define the dynamic responses of the ships for a specified load/operating condition. These form the basic data from which both the RMS and the time history data are generated. A sample of the magnitude of these functions for all six degrees of freedom is presented in Figure 5 for selected headings of the DD 963 operating at 10 knots. The results are presented in terms of the

per unit wave amplitude response versus wave frequency. Thus, long waves tend to have small wave frequencies and short waves have high wave frequencies.

It is noted that the RAOs of the angular responses (roll, pitch, yaw), generally form functions that attain a local maximum and return to zero response per unit wave amplitude on either side of this maximum. This trend thus indicates that the ship does not respond with angular responses when the waves are either very long or very short.

The translational responses (surge, sway, heave), on the other hand, tend to reach a stable, though non-zero, ship response in long waves and tend to reach a zero response in very short waves. Thus, in long waves a ship will tend to follow the waves and in short waves it will not respond.

RAO tables for the five ships in the series were placed on Microfiche and stored as BCD files on disk pack ZMPK08 under user ID = CHZM. Table 7 was prepared as an example of the RAO tabular format for the FF 1052 at a heading of zero degrees and a ship speed of 5 knots. Both the amplitude and phase of the six degree of freedom responses, surge, . . . , yaw, are included in the table. The phases are referenced to the wavecrest being at the origin.

Response Spectra and RMS/ T_{0E} Tables

The responses of the DD 963 to a wave spectrum with an 11-second modal wave period and a 10-foot significant wave height are shown in Figure 6 for longcrested waves and in Figure 7 for shortcrested waves. The ordinate scales of the graphs represent the spectral density in the appropriate units squared times second. The abscissa scales represent the frequency of encounter in radians per second.

The top row of graphs represent the encountered wave spectrum at the various headings relative to the ship. The corresponding response spectra of the DD 963 in all six degrees of freedom are shown in the rows below the wave spectra. It is clear from these encounter spectra that the frequency range of exciting waves decreases substantially as the heading varies towards following seas. It is noteworthy that the encountered response spectra illustrate well-defined maxima. These maxima occur at periods of encounter designated as T_{0E} which generally correspond to the periods associated with the largest ship response cycles.

The frequency domain data is summarized in tables which present, for a given response at the various combinations of modal wave period, speed, and headings, the RMS value of the response and the associated T_{0E} value. Table 8 was prepared as an example of this output format for the roll of the DD 963.

The basic format of all RMS/ T_{0E} tables is identical. A table contains 13 data columns of figures where each column corresponds to a different ship heading: zero degrees corresponds to following seas, 90 degrees corresponds to beam seas, and 180 degrees corresponds to head seas. The columns of data

are divided into five major rows, where each row corresponds to a different ship speed: 5, 10, 15 knots, etc. For a particular speed such as 5 knots and a particular heading such as 90 degrees, the column of figures given corresponds to ship responses in seas with different modal periods: 7, 9, 11, 13 seconds, etc. The column of figures contains two numbers, the first represents the RMS amplitude and the second the associated period of the ship responses, T_{OE} .

Again, since these results are rather voluminous, they are presented in a series of Microfiche as part of this report, and as BCD files on disk pack ZMPK08. It should be noted that this data base contains, for all five ships, roll, pitch, as well as the vertical, lateral, and longitudinal displacements, velocities, and accelerations of three points on the ship.

TIME DOMAIN DATA BASE

It must be noted that the most costly, time consuming steps in the generation of these time domain ship motion data have been completed. The results of these steps, designated as longcrested origin time histories, are stored as 340 data files on disk packs accessible by DTNSRDC's CDC 6700 computer. Thus only the rather quick, efficient, and cost effective calculations that will tailor this ship motion data into the form required by a specific user are left to be performed by such a user. In fact, the examples (see Figures 8 and 9) of the final longcrested and shortcrested results thus available by this process rather clearly demonstrate the cost savings to be gained by this approach of "storing for future use the most costly data." The cost of generating the origin files required for this example represents 99.6 percent and 98.5 percent, respectively, of the total cost involved in the generation of these longcrested and shortcrested time histories. Figure 10 was prepared to demonstrate the major steps involved in this computational process.

It is apparent from inspection of Figure 10 that the Non-Aviation Ship Motion data base thus really consists of three sets, i.e., the RAOs, the RMS/ T_{OE} tables, and the longcrested origin time histories. The RAO data base is intended for specialized users whose application requires these functions to develop ship response data for alternate seaway representations. The RMS/ T_{OE} data base is provided to allow a user to identify the ship operating conditions where ship responses of concern to the user attain critical levels or maxima.

A longcrested rather than shortcrested time domain data base is provided to allow the user a maximum of flexibility in describing the directional properties of the seas. The data base of longcrested response time histories provides the user the capability to alter the shortcrested function from its present cosine squared distribution to either a wider or narrower spreading function. The shortcrested time histories represent a weighted sum of longcrested histories from 11 separate headings. The predominant heading being weighted by 0.408 and the other 10 histories being weighted in accordance to the factors of Figure 3. These weights represent a cosine squared wave energy spreading function.

The time histories of ship motions at the origin of the ship motion coordinate system represent the basic time domain ship motion data base of

this report. As noted earlier, the responses and forces and friction-dependent shoring loads can be calculated at any point on the ships from these origin time histories. The computer program designated as Time History Access Computer Program, THACP, is used for this purpose in accordance with the detailed users manual contained in Appendix B. Both the source and object files for THACP are stored on disk pack ZMPK08.

Figures 8 and 9 were prepared to illustrate the basic format of the time history data that are directly obtainable from these data files. Both figures represent a 300-second sample of the longcrested and shortcrested time histories. Figure 8 presents wave height, heave motion, as well as the vertical and lateral motions and velocities, L_V , L_A , \dot{L}_V , and \dot{L}_A of the DD 963 at the bullseye, i.e., point 3 of Table 2. Figure 9 presents for the same conditions, wave height, roll, pitch, vertical and lateral accelerations in earth coordinates, i.e., \ddot{L}_V and \ddot{L}_A , as well as the comparable accelerations or forces* in ship coordinates, i.e., the normal-to-the-deck force F_N , and the parallel-to-the-deck or lateral force F_L . These latter forces or accelerations represent the forces induced by ship motions on objects or bodies supported by the ship. That is, these forces, which include the gravity component, represent the total force that tends to induce relative motion between the object and the supporting ship structure. These motion-inducing forces F_L and F_N are, of course, resisted by friction, passive restraints such as lines or shoring, or the active motion counterbalancing action of the crew. Details, including a derivation of these forces as well as the associated friction-dependent shoring loads, S_L and S_N , are given in reference 3.

It is interesting to note the differences in the accelerations when these are considered in earth and ship coordinates. The vertical acceleration \ddot{L}_V and normal acceleration F_N clearly are very nearly identical in all respects except that F_N is offset by $1g$. In the case of the lateral acceleration \ddot{L}_A and F_L , the differences are clearly not as trivial. The ship based acceleration F_L is much larger than the earth based lateral acceleration even when roll motions which strongly affect F_L are relatively small. In this context, it is also noted that F_L appears to follow roll more closely than it does the lateral acceleration \ddot{L}_A in earth coordinates. In fact, F_L is larger than even the normal acceleration F_N . These sample time histories thus illustrate the importance of the lateral acceleration or force, F_L , in ship coordinates.

In reviewing the time histories, it becomes quite clear that, for this particular sample of time histories, the shortcrested ship responses contain larger ship responses than do the longcrested responses. In general, the ship response levels in longcrested and shortcrested seas are strongly dependent upon ship heading as illustrated in the Appendix of reference 17. The user of this ship motion data is faced with a choice as to how to best represent the seas. He must select whether or not to employ either a longcrested or short-crested, or perhaps even to calculate a mixed shortcrested plus swell seaway representation, as illustrated in recent work at DTNSRDC.**

*The terms acceleration and force are used interchangeably.

**Reported informally by A.E. Baitis et al. in NSRDC Evaluation Report 563-H-01 (May 1974).

SHIP MOTION CONDITION SELECTION

Only some very brief and general guidance on how the user can select the data to suit his problem can be given. An in-depth discussion of such a process is well beyond the scope of this report and is left primarily for the user to pursue in the various references.

The selection of operating and environmental or calculation conditions for which ship response data are required obviously depends on the basic problem a potential user is attempting to solve. Furthermore, these calculation conditions depend upon the identity of the components of the ship responses or related forces which seriously affect or produce the basic problem.

Individual ship response components can, in fact, attain critical or maximum values for quite different ship operating conditions, see RMS/T_{0E} tables of this report. A potential data user is faced therefore with the problem of how to identify the neighborhood of operating conditions where all of the troublesome ship response components attain large values. For ship response components that are given as part of the RMS/T_{0E} data base this process is relatively easy since it involves looking through all of the RMS/T_{0E} tables. A detailed example that illustrates this process is given for an ammunition-carrying cargo ship operating in a severe storm as Appendix B of reference 3.

For ship responses such as F_L , F_N , S_L , and S_N , that are not linear* combinations of ship motion components, the identification of the neighborhood where responses attain critical values is much more difficult. It is clear that the time domain calculation of all possible values of such nonlinear ship responses for all operating conditions and for a large set of points on the ship can be performed using the time domain data base provided. However, it may be more efficient to identify the "neighborhood" by using the RMS/T_{0E} data base and linearized upper bound expressions for the forces or loads involved. Again, a detailed example for this type of selection process is given in Appendix B of reference 3. This example examines the reduction of troublesome cargo shoring loads attainable through speed and heading changes in a storm.

Once the troublesome response components and the neighborhood where they are large are identified from the frequency domain data base, it is then necessary to decide whether operations at the maximum possible response RMS level or some lower RMS value with possibly a higher probability of occurrence are appropriate. The estimated probability of occurrence of the conditions that produce the selected RMS levels will, of course, depend on the available wave occurrence data bases.^{15,16}

However, the selected RMS levels will also depend upon as many operational wave observations as are available for a particular operation such as, for example, the ones made regarding Harrier operations off the LPH-9 GUAM.¹⁷ It was noted during the GUAM's operation as the Interim Sea Control Ship that longcrested rather than shortcrested seas produced motion-induced problems with aircraft launch and recovery operations.

*With wave height.

If ship operations are equally likely and equally important at all headings relative to such seas, then the selection of the worst heading RMS ship response in longcrested seas is considered to be most likely and appropriate for aircraft operations off ships such as the GUAM or non-aviation ships such as the FF 1052. Table 9 was prepared to illustrate the results of a comparison between the most probable worst heading responses in 200 cycles of wave encounter in longcrested and shortcrested seas. These results at 10 and 20 knots in 10-foot significant wave height seas at modal wave periods of 7, 11, and 19 seconds illustrate convincingly that these worst heading responses in longcrested seas are worse than the ones in shortcrested seas.

Once the response RMS level appropriate to a user's problem is selected, it is then necessary to decide which statistical level of ship responses is important, i.e., what is the limiting level, or a best guess of this level, of responses for the operations under consideration. In the previous example for the FF 1052 this level was selected to be the most probable extreme value in 200 cycles of encounters, see Table 3. This value corresponds to a constant multiplier of the RMS ship responses of 3.25, i.e., $3.25 \times \text{RMS}$ = the highest expected amplitude in 200 successive amplitudes. This response statistic corresponds to the highest expected response in about a one half hour of ship operation.

At this stage the user must therefore consider the amount of risk that is incurred when a particular level of responses is exceeded. In general, the more serious the risk is, the smaller its probability of occurrence must be made. This is achieved by selecting a relatively long and thus conservative exposure time of the ship during its operation and by selecting an arbitrarily small probability, α , that the response statistic will be exceeded, see reference 18.

EXAMPLE OF SHIP MOTION CONDITION SELECTION

In order to demonstrate how typical ship responses can be obtained from the present data base, consider for example that a user has access to the DTNSRDC computer and has a ship motion related problem with non-aviation ships such as helicopter operations off the DD 963. This user thus faces a seven step selection process which is outlined in Table 10 if time domain ship responses, such as forces and loads, are of importance.

As noted in the previous section, his first task is to select the motion components that are likely to impact his problem. In this example, the user identifies roll, pitch, and lateral and vertical velocities and acceleration at the bullseye on the helicopter landing deck as being important to this problem.

The next task is to identify the neighborhood of calculation conditions where the RMS/ T_{0g} values of the responses attain large values. This neighborhood

*Risk associated with the consequences of exceeding a response statistic such as the most probable extreme in 200 successive amplitudes.

of calculation conditions consists of ship headings, speeds, wave heights, modal wave periods, sea type, i.e., whether or not the sea is primarily long-crested or shortcrested, and the statistic of the responses desired. Table 9 employs, as an example for the FF 1052, the worst heading of the responses to define the neighborhood of conditions within the time domain data base where ship/helicopter operations are likely to be affected due to ship motions. As noted earlier, the results are shown for a typical state five sea with a 10-foot significant wave height.

The results illustrate clearly that the different ship motion components attain their maximum values at different ship headings, modal wave periods, and speeds. Here, of course, the worst heading longcrested responses are larger than the shortcrested responses.

Returning to the DD 963 example, assume that the user has reached the decision that data at 10 knots in shortcrested seas at a predominant heading of 105 degrees, modal wave period of 11 seconds, and a significant wave height of 10 feet is worthy of particular attention. It is noted that this typical sea state with relatively low ship speed may be selected because it represents a typical aircraft recovery operation near the upper bounds of the allowable wind envelope and ship motions.^{19,20,21,22} Thus commonly occurring wind speeds at these 10 foot wave heights tend to increase the relative wind over the deck towards its allowable upper limits. Once the helicopter has landed with the ship on such a recovery course, and before it is securely chained to the deck the probability of sliding and related consequences produce safety concerns.

If the user is particularly concerned with safety at this stage in the helicopter recovery the forces that induce sliding must be identified and related. Sliding depends on a series of forces including 1) the normal and lateral ship motion induced forces F_N , F_L , 2) the friction force between the landing gear wheels and the deck μF_N^{**} , 3) the roll motion, ϕ , dependent lift and drag forces made by the angle of incidence between the main rotor plane and the (horizon) wind, 4) the tail rotor thrust forces 5) the wind loads on the airframe etc. These various components of the sliding force in turn depend on relative wind speed and direction, wind turbulence or gustiness, the lift/drag characteristics of the basic airframe, the ship heading relative to the seas, the characteristics of the seas, ship speed, the resulting ship motions, the coefficient of friction between the deck and the wheels, the position of control such as the cyclic and collective, etc.

In short, the sliding problem depends on forces that are entirely dependent upon ship motions such as F_L and F_N , and forces that are less strongly dependent upon ship motions though still not entirely independent of them

*Refer to Table B-11 for the maximum responses associated with this example and to Table 4 of reference 19 for full-scale experimental data for SH-2F operations on the FF 1078 in similar seas.

** F_N is the sum of all of the normal forces on the airframe including the pure ship motion induced force F_N .

such as the remaining forces noted. The construction of the mathematical model that assembles these forces, (or estimates thereof) into a set of logical, coherent expressions that describe realistically the variables of interest, in this case the sliding force and sliding distance, is therefore left entirely to the ingenuity of the user. It is emphasized therefore that construction of a relevant math model of particular problems is considered to be the function of the user.

A simple math model of a box sliding on the deck of the ship is contained in THACP. The model provides the slide restraining forces, denoted as shoring loads S_L and S_N , required to just prevent the occurrence of sliding as produced by the ship motion induced forces F_L , F_N , and the related friction force μF_N .*

For the above reasons therefore, the user decides to select a set of 14 ship responses including the forces in the sixth selection step of Table 10. It is, of course, possible for the user to select a larger set of responses, but for illustration purposes, this set was considered to be adequate.

The user also elects to print out the selected response time histories, see Table B-9, and plots thereof in Figure B-1 and Figures 8 and 9.

In conclusion, therefore, the applications of this data depend upon the user and his specific problem.

SUMMARY

The most time and cost consuming aspects of the ship motion predictions have now been completed for a series of five non-aviation ships. A frequency domain data base, including RAO and RMS/ T_{0g} response predictions, and a time domain data base and time history access computer program, THACP, have been developed. Examples are provided illustrating how the different data bases can be used. Documentation and examples of using the THACP program are given. The ultimate usefulness of the Non-Aviation Ship Motion data base however depends upon the ingenuity of the potential user who must still adapt this ship motion input to suit his specific problem.

RECOMMENDATION

It is recommended that NAVAIR task DTNSRDC to "protect" the data base files from inadvertent user damage or erasure on the disk packs. There is currently one set of backup digital tapes to allow the recreation of these disk files. This is not considered to be adequate data file protection.

It is also recommended that the frequency domain data base be increased to include responses for the entire range of possible ship load conditions as was done for the U.S. Coast Guard in reference 3.

Neither of the above recommendations involve the expenditure of a large amount of effort.

*Sliding force is dependent on the coefficient of friction μ , as well as F_L and F_N . In the example it was assumed to be equal to 0.5 to simulate a wet or icy deck.

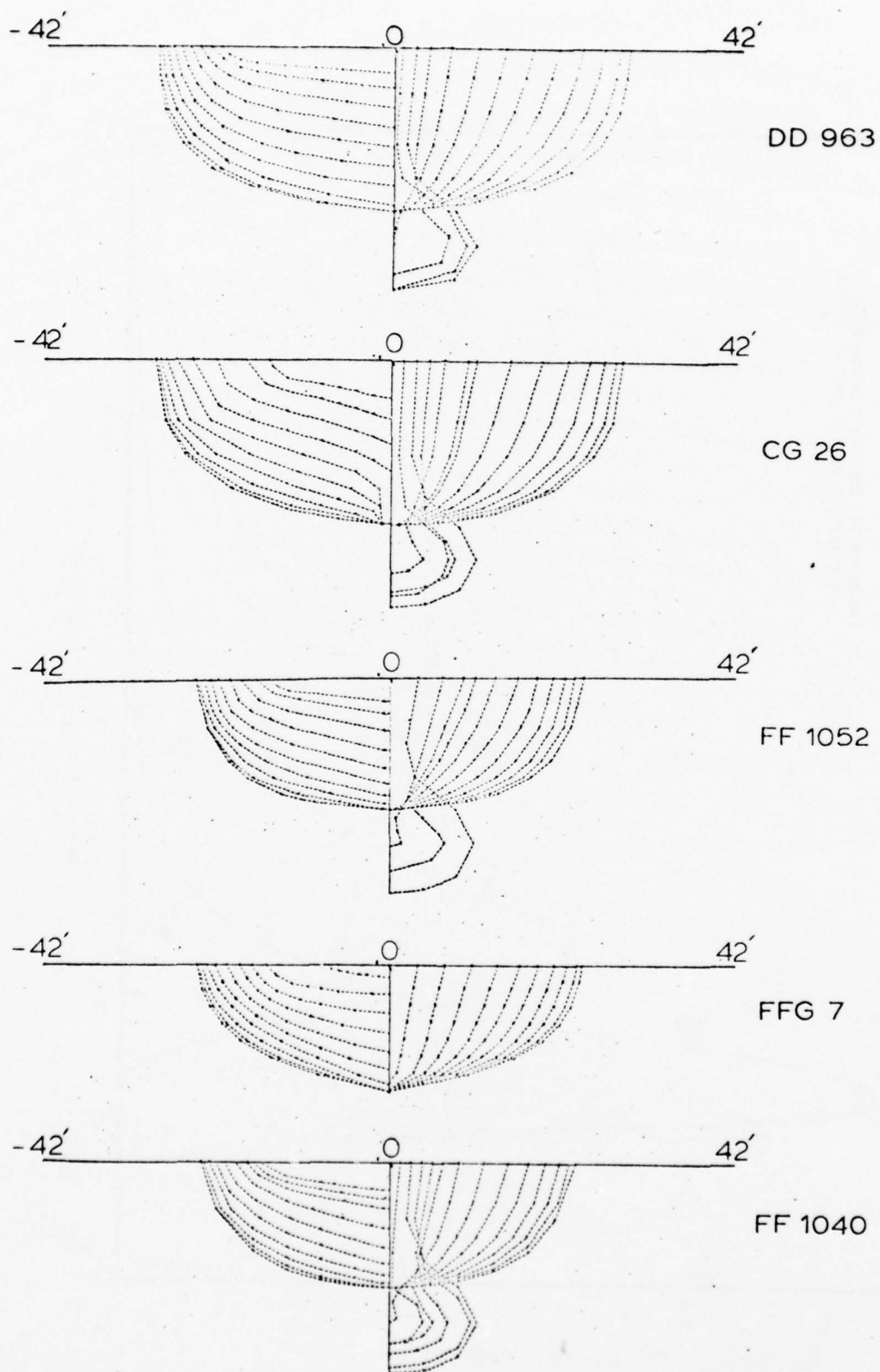


Figure 1 - Body Plans of Non-Aviation Ship Motion Series

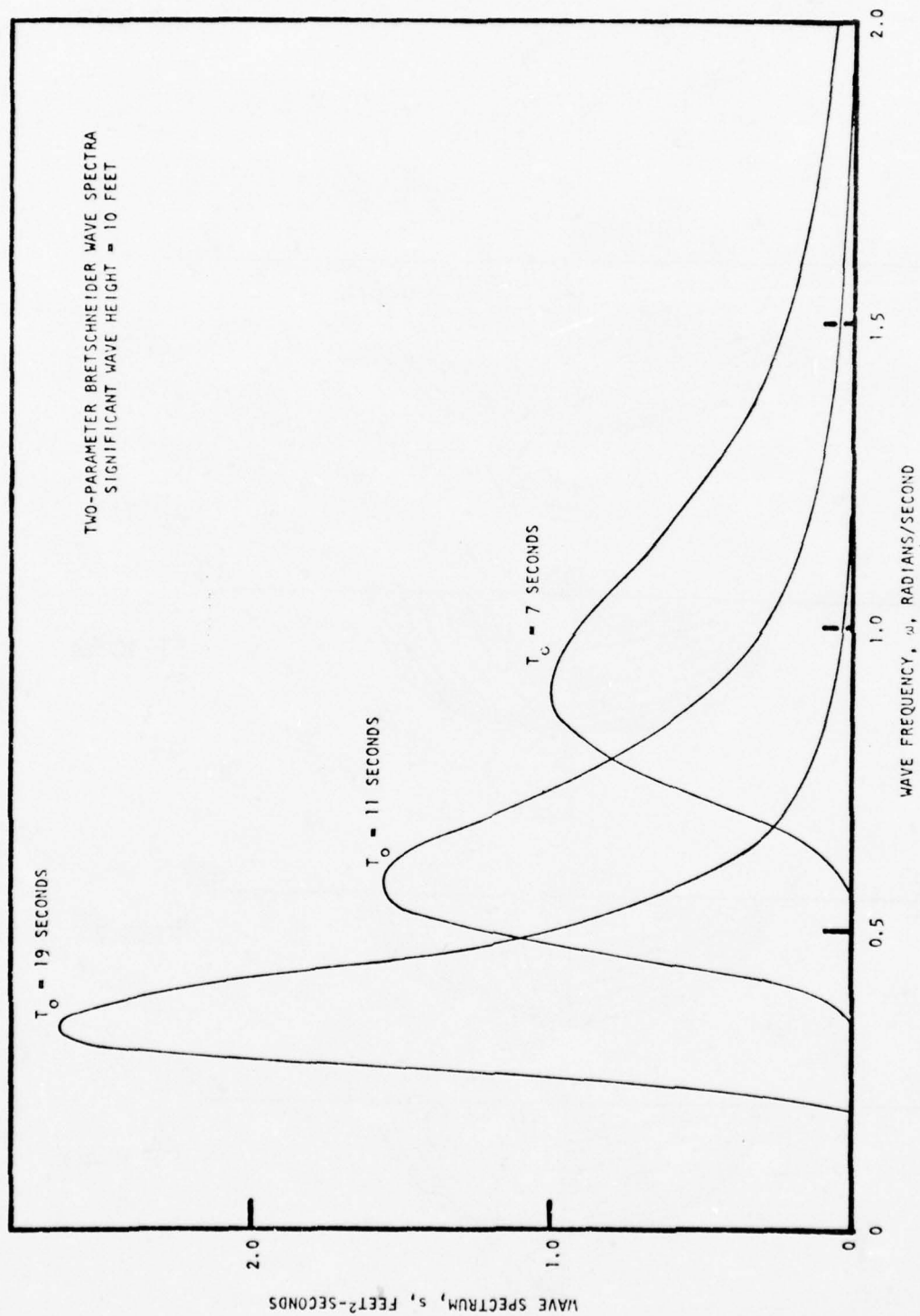
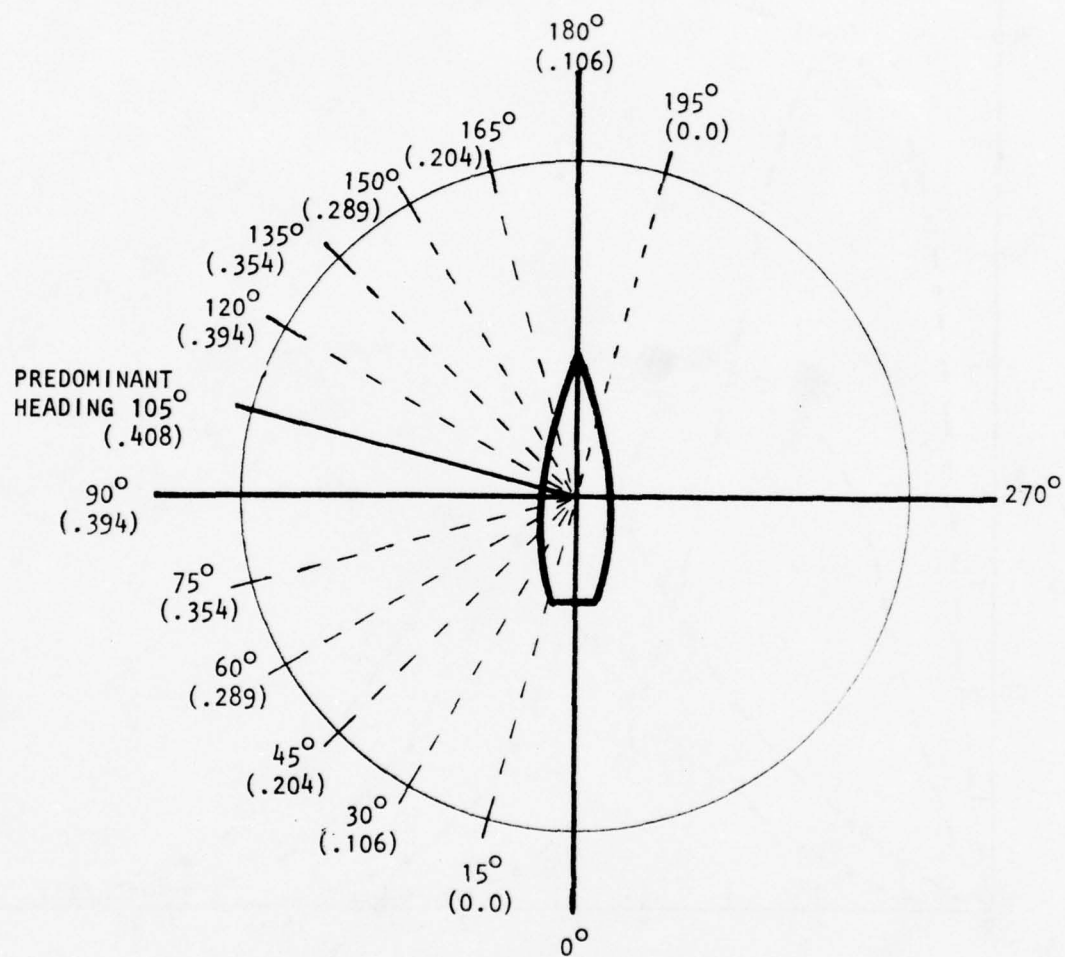


Figure 2 - Sample Bretschneider Wave Spectra



Note: Numbers in parentheses are shortcrested weights.

Figure 3 - Shortcrested Scheme

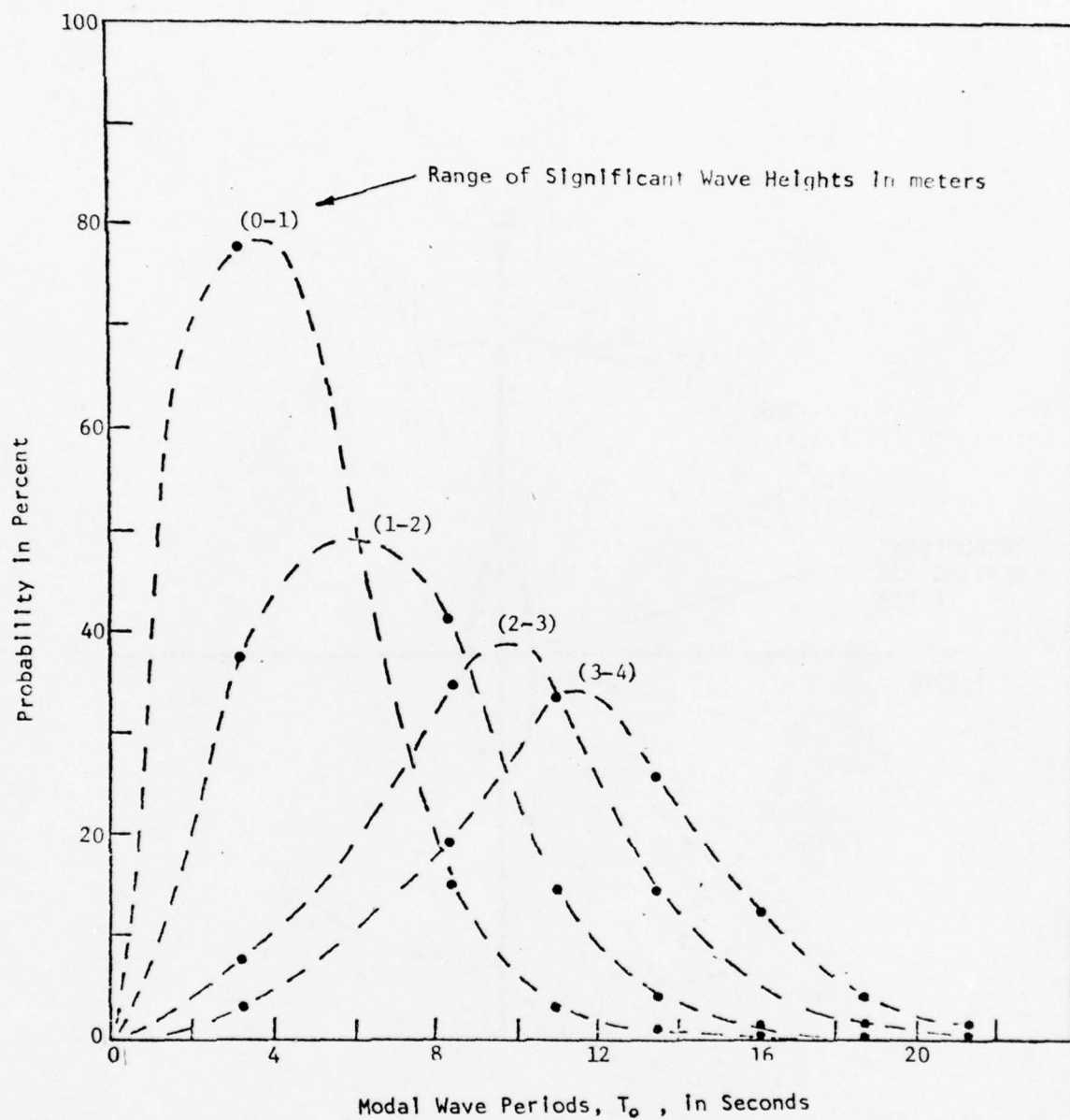


Figure 4 World Wide, All Seasons Modal Wave Period Distribution for Seas with Four Different Ranges of Significant Wave Heights - (0-1), (1-2), (2-3), (3-4) meters

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DD 963 RAO RESPONSES VERSUS WAVE FREQUENCY (Ω)

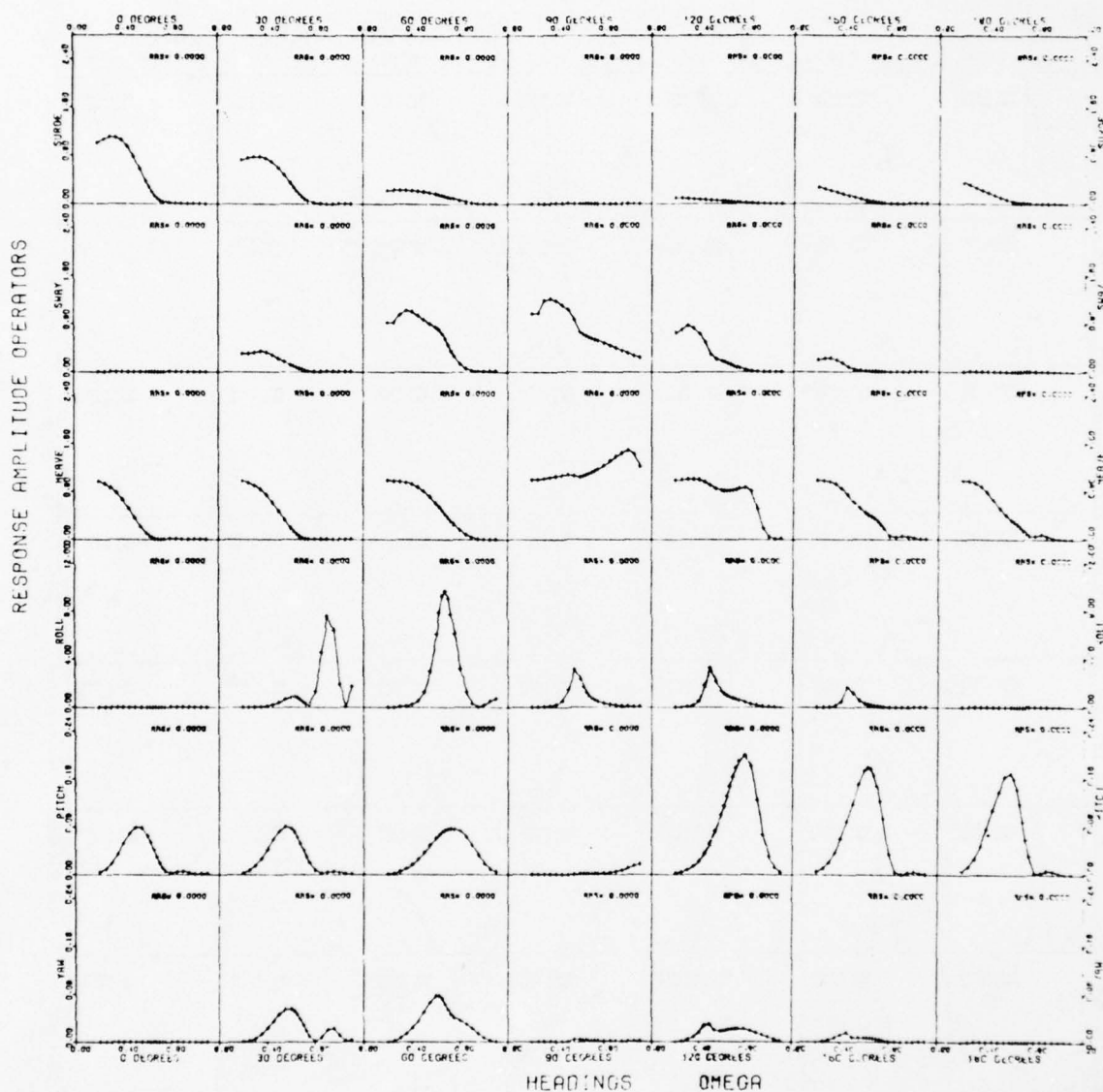


Figure 5 - Sample RAOs for DD 963 at 10 Knots

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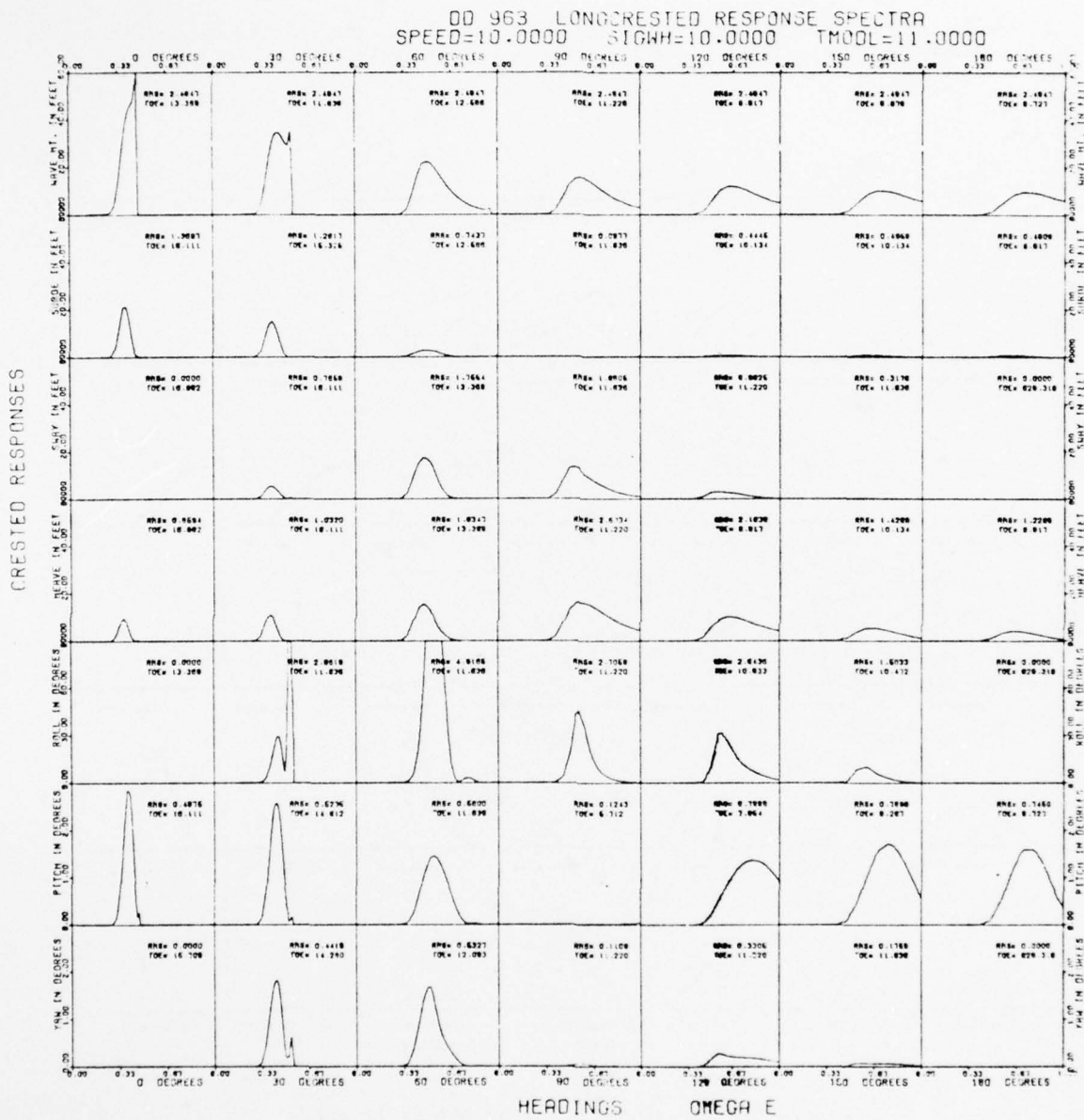


Figure 6 - Sample Longcrested Wave and Origin Ship Response Spectra for DD 963 at 10 Knots

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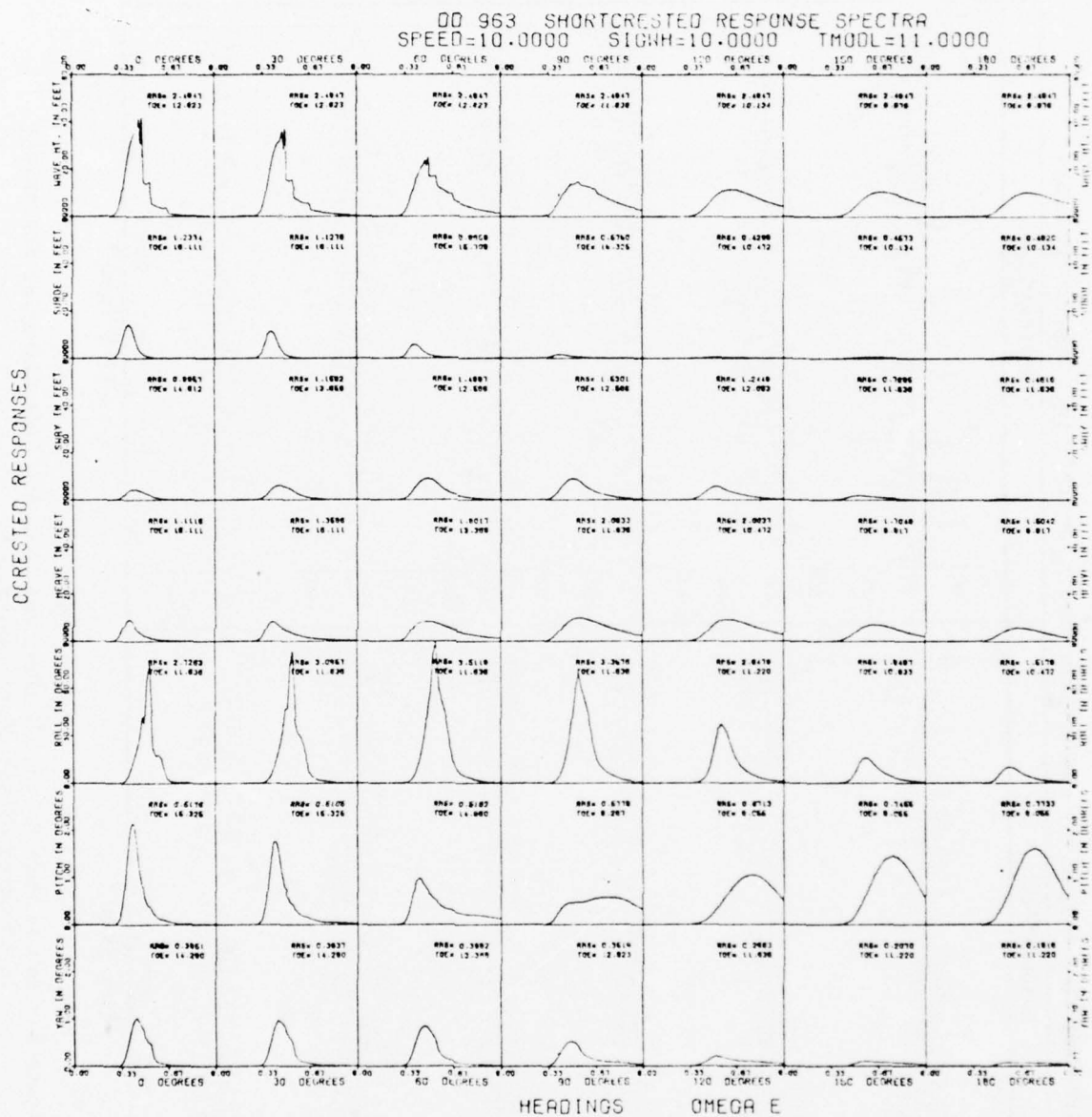


Figure 7 - Sample Shortcrested Wave and Origin Ship Response Spectra for DD 963 at 10 Knots

Significant Wave Height = 10 feet, Ship Heading = 105°, Ship Speed = 10 Knots

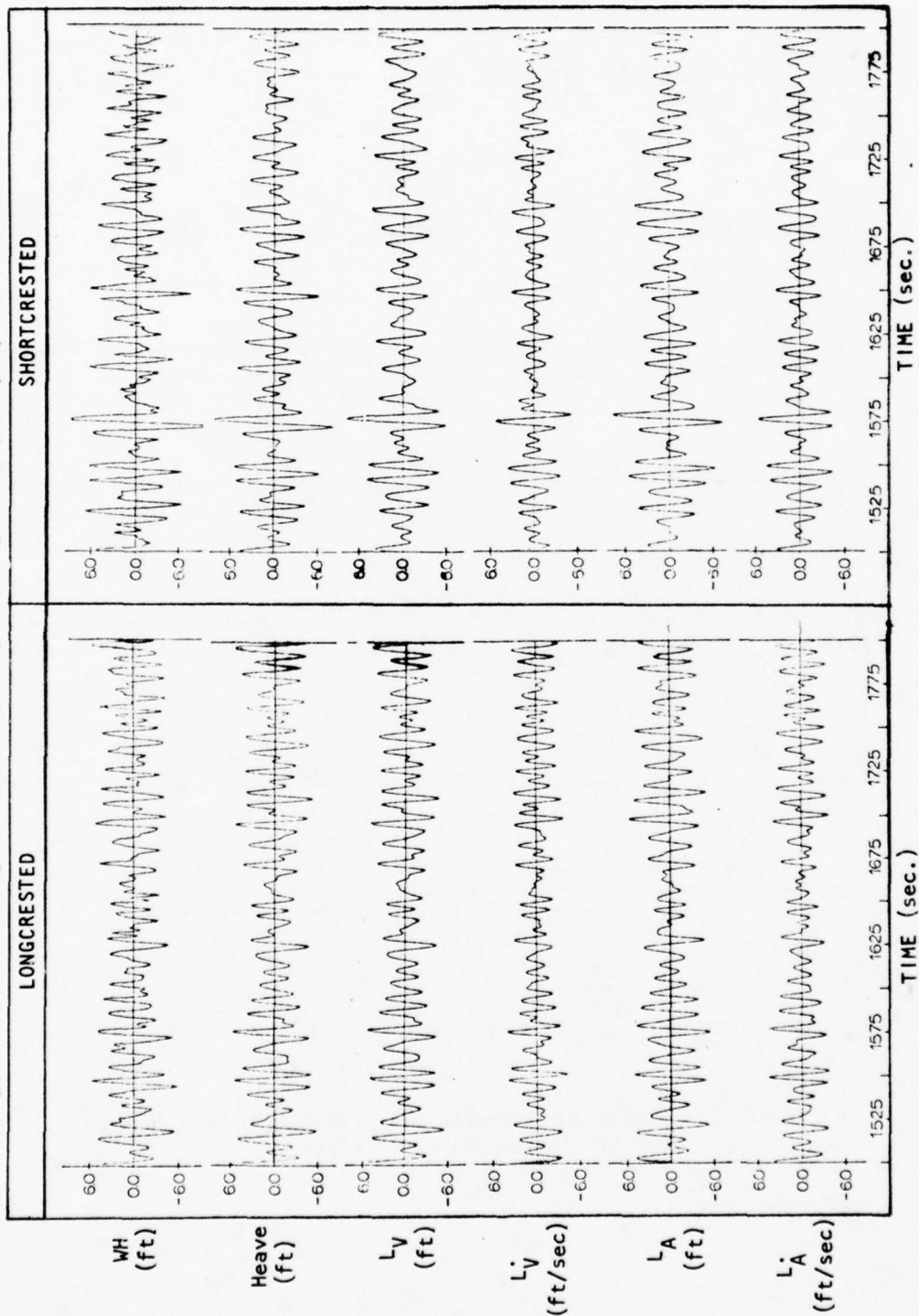


Figure 8 - Sample Wave Height, Motion, and Velocity Time Histories for DD 963 in Longcrested and Shortcrested Seas

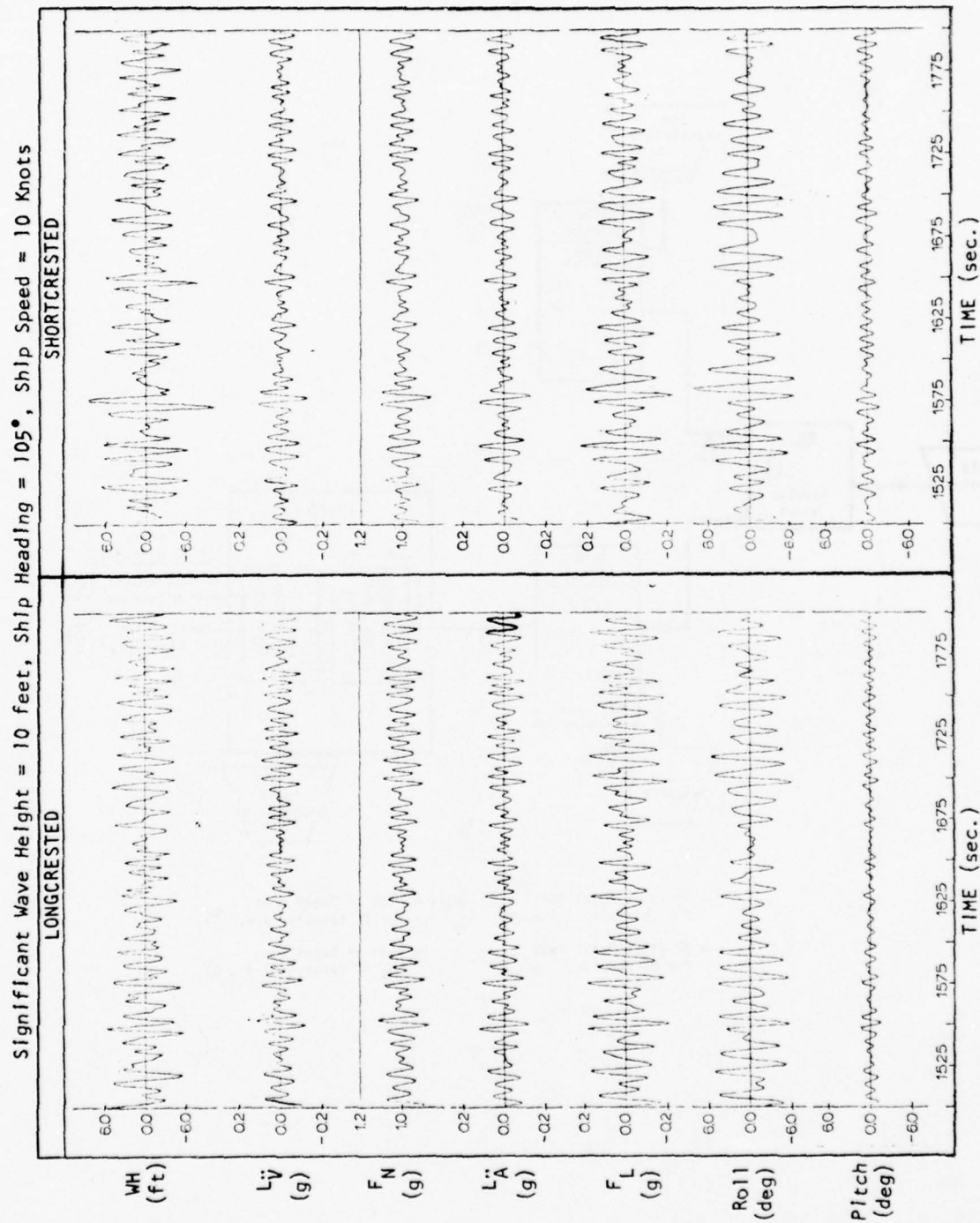


Figure 9 - Sample Wave Height, Pitch, Roll, Acceleration, and Motion-Induced Force Time Histories for DD 963 in Longcrested and Shortcrested Seas

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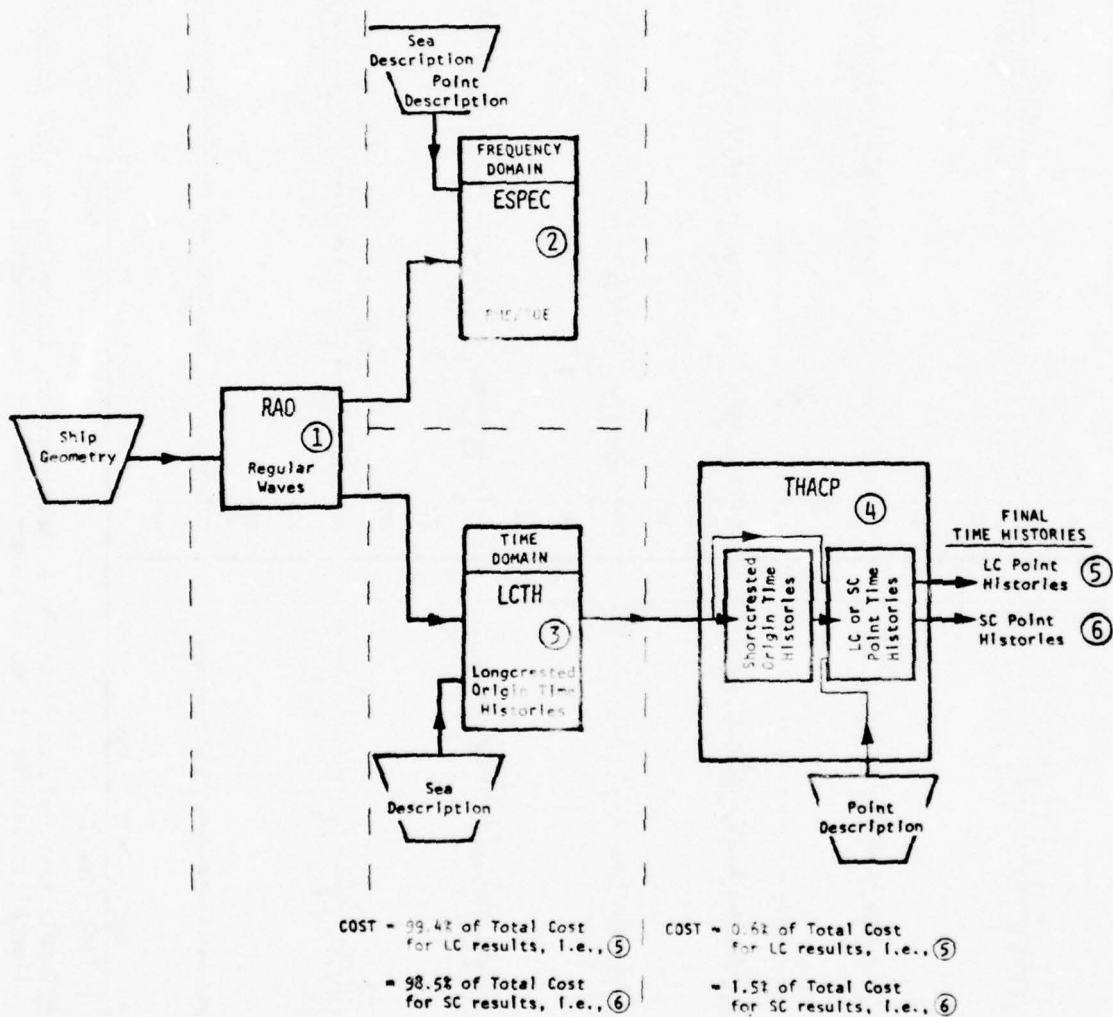


Figure 10 - Major Steps and Costs in Computational Process

TABLE 1 - SHIP PARTICULARS











SHIP	PROFILE	DISPLACEMENT (Long Tons/Metric Tons)	LBP (Feet/Meters)	B _M (Feet/Meters)	T _M (Feet/Meters)	GM (Feet/Meters)	KG (Feet/Meters)	K _φ (Feet/Meters)	T _φ (Seconds)
DD 963		7698 / 7822	529.0 / 161.2	55.0 / 16.8	19.4 / 5.9	4.80 / 1.46	21.86 / 6.66	19.07 / 5.81	11.41
CG 26		7714 / 7838	524.0 / 159.7	54.4 / 16.6	18.8 / 5.7	5.63 / 1.72	19.76 / 6.02	18.89 / 5.76	9.65
FF 1052		4179 / 4246	415.0 / 126.5	46.4 / 14.1	15.5 / 4.7	4.47 / 1.36	17.50 / 5.33	16.01 / 4.88	9.65
FFC 7		3521 / 3578	408.0 / 124.4	45.1 / 13.7	14.8 / 4.5	4.05 / 1.23	18.66 / 5.69	15.80 / 4.82	8.97
FF 1040		3436 / 3491	390.0 / 118.9	43.7 / 13.3	14.5 / 4.4	4.64 / 1.41	15.96 / 4.86	15.35 / 4.68	8.99

TABLE 2 - POINT LOCATIONS FOR RMS/TOE DATA

SHIP	PROFILE & LOCATION	POINT*	X-DISTANCE FROM AP (Feet/Meters)	Y-DISTANCE FROM CL (Feet/Meters)	Z-DISTANCE FROM BL (Feet/Meters)
DD 963		1	258.7 / 78.9	0.0	21.9 / 6.7
		2	0.0	0.0	33.0 / 10.1
		3	141.0 / 43.0	0.0	51.0 / 15.5
CG 26		1	255.8 / 78.0	0.0	19.8 / 6.0
		2	0.0	0.0	32.3 / 9.8
		3	125.3 / 38.2	0.0	39.7 / 12.1
FF 1052		1	209.5 / 63.9	0.0	17.5 / 5.3
		2	0.0	0.0	30.5 / 9.3
		3	90.0 / 27.4	0.0	38.0 / 11.6
FFG 7		1	201.7 / 61.5	0.0	18.7 / 5.7
		2	0.0	0.0	31.0 / 9.4
		3	40.0 / 12.2	0.0	30.0 / 9.1
FF 1040		1	196.3 / 59.8	0.0	16.0 / 4.9
		2	0.0	0.0	31.4 / 9.6
		3	35.7 / 10.9	0.0	31.0 / 9.4

*NOTE: Point 1 is the location of the center of gravity.

Point 2 is the location of the aft perpendicular at the main deck.

Point 3 is the location of the helicopter deck bullseye.

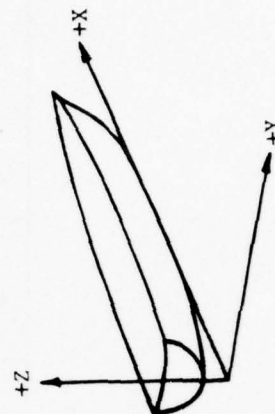


TABLE 3 - CONSTANTS FOR SINGLE-AMPLITUDE STATISTICS AND EQUATION FOR TWO-PARAMETER BRETSCHNEIDER SPECTRUM

SINGLE AMPLITUDE STATISTICS		BRETSCHNEIDER SPECTRUM $S_f(\omega)$
Root mean square amplitude, rms	1.00 σ	$S_f(\omega) = A\omega^{-5} \exp \{-B/\omega^4\}$ in ft^2/sec
Average amplitude	1.25 σ	$A = 483.5 (\tilde{\xi}_w)_{1/3}^2 / T_0^4$, $\text{ft}^2 \text{sec}^{-4}$
Average of highest 1/3 amplitudes, significant	2.00 σ	$B = 1944.5 / T_0^4$, sec^{-4}
Highest expected amplitude in 10 successive amplitudes	2.15 σ	$(\tilde{\xi}_w)_{1/3}$ = Average of highest 1/3 wave heights
Average of highest 1/10 amplitudes	2.55 σ	T_0 = Modal period of spectrum, i.e., period corresponding to peak of spectrum
Highest expected amplitude in 30 successive amplitudes	2.61 σ	
Highest expected amplitude in 50 successive amplitudes	2.80 σ	
Highest expected amplitude in 100 successive amplitudes	3.03 σ	
Highest expected amplitude in 200 successive amplitudes	3.25 σ	
Highest expected amplitude in 1000 successive amplitudes	3.72 σ	

DEFINITIONS

σ^2 = Statistical variance of time history

N = Number of successive amplitudes

CONSTANT = $\sqrt{2} (\ln N)^{1/2}$, where CONSTANT relates σ to the highest expected amplitude in N successive amplitudes.

NOTES:

1. The highest expected amplitude in N amplitudes is the most probable extreme value in N amplitudes. This value may be exceeded 63 percent of the time.
2. To obtain wave height or double amplitude statistics from rms values, multiply single amplitude constants by 2.0.

TABLE 4 — DEFINITION OF SEA STATES

State	Ranges of Significant Wave Heights $(\tilde{\zeta}_w)^{1/3}$ ft	Ranges of Modal Wave Periods T_0 sec
1	0 — 1.92	0 — 3.08
2	1.92 — 4.13	3.08 — 4.52
3	4.13 — 5.66	4.52 — 5.29
4	5.66 — 7.35	5.29 — 6.03
5	7.35 — 13.04	6.03 — 8.03
6	13.04 — 20.80	8.03 — 10.15
7	20.80 — 40.33	10.15 — 14.13
8	40.33 — 61.58	14.13 — 17.45

NOTE: 1. T_0 periods corresponding to the steepest, partially developed wind-generated waves, short fetch, high wind, moving hurricane.

2. Steeper waves do occur, but they are rare and are generally associated with land locked bays or lakes.

3. $T_0 = [(\tilde{\zeta}_w)^{1/3} / 0.202]^{1/2}$ Modal period of partially developed hurricane sea (Bretschneider).

4. $T_0 = [(\tilde{\zeta}_w)^{1/3} / 0.127]^{1/2}$ Modal period of fully developed wind sea (Pierson-Neumann-James).

5. $\lambda_0 / (\tilde{\zeta}_w)^{1/3} = 40$ Pierson-Moskowitz wave spectra, i.e., (4)

6. $\lambda_0 / (\tilde{\zeta}_w)^{1/3} = 25$ Bretschneider, i.e., (3)

7. $\lambda_0 / (\tilde{\zeta}_w)^{1/3} = 10$ Steepest observed, Hogben and Lumb

λ_0 = Wavelength corresponding to period of spectrum peak, T_0

TABLE 5 - PROBABILITY OF OCCURRENCE OF MODAL WAVE PERIODS ON WORLDWIDE,
ALL SEASON BASIS

Wave Height \bar{z}_w $(\bar{z}_w)_{1/3}$	Wave Period T_o , Seconds									
	3.2	8.4	11.0	13.5	16.1	18.7	21.3	23.8	26.4	> 27
≤ 4 m	41.1	29.0	15.2	6.4	2.3	0.8	0.2	0.1	0.1	0.6
> 4 m	0.1	0.5	1.1	1.1	0.7	0.3	0.1	0*	0*	0*
3 - 4 m	3.2	19.3	33.5	25.7	12.4	4.1	1.3	0.4	0*	0*
All Hts.	41.2	29.5	16.3	7.5	3.0	1.1	0.4	0.1	0.1	0.6
Cumulative	41.2	70.7	87.0	94.5	97.5	98.6	99.0	99.1	99.2	99.8

Prediction Periods 7, 9, 11, 13, 15, 17, 19, 21 seconds.

0* Defined to be the probability of occurrence equal or less than 0.05 percent.

TABLE 6 - GENERAL DISK PACK STORAGE

All Files Stored Under User ID: CHZM

Setname(SN)	Volser(VSN)	File Format	Contents
ZMPK01	DV4721	Binary	Longcrested Origin Time History Files
ZMPK02	DV4720	Binary	Longcrested Origin Time History Files
ZMPK03	DV4736	Binary	Longcrested Origin Time History Files
ZMPK04	DV4737	Binary	Longcrested Origin Time History Files
ZMPACK	DV4738	Binary	Longcrested Origin Time History Files
ZMPK06	DV4739	Binary	Longcrested Origin Time History Files
ZMPK07	DV4740	Binary	Longcrested Origin Time History Files
ZMPK08	DV4751	Binary BCD	THACP Object File THACP Source File, RAO and RMS/TOE Tables

TABLE 7 - SAMPLE FREQUENCY DOMAIN RAO SHIP RESPONSE TABLE FOR FF 1052,
HEADING OF 0 DEGREES, SHIP SPEED OF 5 KNOTS

ON 1076

NO. OF RECORDS = 60

NO. OF PLOTS = 30

REC = 1

HEADING = 0. DEG

SHIP SPEED = 5. KNOTS

RAO (MOTION/WAVELENGTH)*2

WF	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	3.744E+00	4.119E-15	4.815E-01	4.017E-17	4.398E-03	4.060E-17
.234	.250	1.512E+00	7.447E-15	4.603E-01	1.140E-16	1.091E-02	9.185E-17
.276	.300	7.094E-01	7.733E-15	4.220E-01	2.440E-16	2.249E-02	1.832E-16
.318	.350	3.758E-01	4.467E-15	4.741E-01	7.211E-16	4.928E-02	4.506E-16
.358	.400	2.372E-01	4.106E-15	4.913E-01	1.713E-15	6.505E-02	7.830E-16
.397	.450	1.404E-01	7.630E-15	7.002E-01	3.737E-15	9.539E-02	1.150E-15
.434	.500	1.374E-01	5.530E-15	5.735E-01	7.445E-15	1.200E-01	1.507E-15
.471	.550	2.004E-01	4.162E-15	4.308E-01	1.350E-14	1.400E-01	1.783E-15
.505	.600	2.104E-01	2.854E-15	2.879E-01	2.224E-14	1.578E-01	1.901E-15
.522	.625	2.104E-01	2.364E-15	2.223E-01	2.753E-14	1.552E-01	1.880E-15
.539	.650	2.051E-01	1.835E-15	1.634E-01	3.330E-14	1.474E-01	1.800E-15
.555	.675	1.941E-01	1.447E-15	1.132E-01	3.449E-14	1.347E-01	1.662E-15
.571	.700	1.775E-01	1.124E-15	7.268E-02	4.625E-14	1.179E-01	1.471E-15
.587	.725	1.561E-01	8.679E-16	4.229E-02	5.447E-14	9.803E-02	1.242E-15
.602	.750	1.312E-01	6.444E-16	2.190E-02	6.685E-14	7.679E-02	9.940E-16
.632	.800	7.421E-02	2.742E-16	4.314E-03	1.400E-13	3.706E-02	6.044E-16
.660	.850	3.355E-02	1.123E-16	8.283E-03	9.178E-13	1.071E-02	1.622E-16
.687	.900	8.174E-03	7.525E-16	1.227E-02	2.476E-12	2.260E-03	4.285E-16
.713	.950	1.713E-03	1.744E-16	1.283E-02	4.631E-13	7.443E-03	4.874E-16
.737	1.000	4.547E-03	5.163E-16	7.582E-03	1.259E-13	1.444E-02	3.836E-17
.761	1.050	6.353E-03	1.819E-16	2.336E-03	3.101E-14	1.375E-02	3.571E-17
.782	1.100	4.020E-03	1.626E-16	1.563E-03	1.441E-14	6.221E-03	1.212E-17
.803	1.150	1.164E-03	1.740E-16	3.614E-03	1.496E-14	1.141E-03	6.443E-18
.822	1.200	4.502E-04	1.300E-16	3.486E-03	1.798E-14	3.442E-03	8.745E-18
.840	1.250	1.493E-03	4.426E-17	1.472E-03	8.383E-15	6.400E-03	1.702E-17
.856	1.300	1.444E-03	4.191E-17	4.223E-04	4.502E-15	4.660E-03	2.027E-17
.885	1.400	3.450E-04	7.761E-17	1.746E-03	6.865E-15	2.147E-03	1.310E-17
.928	1.600	2.993E-04	3.659E-17	6.841E-04	2.207E-15	2.520E-03	1.443E-17
.949	1.800	6.331E-05	1.531E-17	3.075E-04	2.478E-16	1.038E-03	1.282E-17
.950	2.000	2.124E-04	4.185E-18	2.994E-04	3.944E-16	7.247E-04	7.641E-18

PHASE (MOTION-WAVELENGTH)

WF	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	-16.0	-90.7	.2	-105.5	91.0	-171.7
.234	.250	-24.5	-90.6	.2	-111.0	89.0	-170.4
.276	.300	-35.8	-90.7	.3	-116.9	87.3	-169.2
.318	.350	-53.8	-89.3	.2	-123.9	85.0	-171.0
.358	.400	-69.7	-89.4	.1	-128.5	82.8	-168.7
.397	.450	-89.9	-90.3	.3	-130.9	80.5	-165.2
.434	.500	-107.6	-92.2	.6	-131.2	77.9	-161.1
.471	.550	-121.0	-95.2	1.3	-129.4	74.9	-156.5
.505	.600	-130.4	-99.8	2.4	-125.3	71.3	-151.2
.522	.625	-133.4	-102.9	3.4	-122.2	69.3	-148.2
.539	.650	-136.7	-106.3	4.7	-118.0	67.1	-144.6
.555	.675	-138.9	-110.0	6.5	-112.5	64.6	-140.4
.571	.700	-140.7	-113.6	9.2	-105.3	61.9	-135.3
.587	.725	-142.9	-116.3	13.5	-95.7	58.7	-128.6
.602	.750	-142.8	-116.9	20.9	-83.1	55.1	-119.2
.632	.800	-142.7	-94.9	63.4	-46.7	45.1	-80.7
.660	.850	-138.6	14.3	129.1	9.3	25.8	7.6
.687	.900	-123.8	132.5	149.8	127.7	-43.4	135.4
.713	.950	-55.8	178.3	159.8	178.8	-108.8	-178.0
.737	1.000	-2.7	-153.3	171.2	-154.7	-129.5	-169.0
.761	1.050	14.3	-107.7	-160.6	-119.3	-144.3	94.0
.782	1.100	28.6	-56.7	-39.6	-57.6	-163.5	83.0
.803	1.150	61.4	-22.4	-52.4	-13.2	136.5	118.2
.822	1.200	136.5	9.7	-34.2	13.3	53.4	-177.0
.840	1.250	170.3	53.4	-9.7	45.2	28.7	-131.3
.856	1.300	-170.6	103.1	51.4	104.3	8.2	-96.9
.885	1.400	-54.0	-176.8	134.8	-176.1	-138.2	-2.8
.928	1.600	143.8	28.3	-27.1	22.5	11.9	-167.2
.949	1.800	-11.0	-115.3	-115.5	-77.9	147.0	70.4
.950	2.000	-78.6	139.1	111.4	158.3	-178.9	-33.2

TABLE 8 - SAMPLE FREQUENCY DOMAIN RMS/T_{0E} SHIP RESPONSE TABLE OF ROLL FOR DD 963

LONGESTED RMS ROLL IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS													
DD 963													
V	T	SHIP HEADING ANGLE IN DEGREES											
		0	15	30	45	60	75	90	105	120	135	150	165
5	7	.00/11.2	.088/9.6	.133/11.2	.186/10.6	.209/9.8	.217/9.7	.104/8.7	.184/7.1	.124/7.7	.077/7.9	.044/8.1	.021/8.3
	9	.00/11.2	.149/11.6	.264/11.6	.372/11.2	.431/10.8	.390/10.8	.270/10.5	.270/10.5	.270/10.5	.200/10.1	.131/10.1	.070/11.2
	11	.00/11.2	.161/11.6	.305/11.6	.440/11.6	.507/11.2	.458/10.8	.320/11.2	.369/10.4	.375/10.8	.309/11.2	.225/11.2	.133/11.2
	13	.00/11.2	.147/11.6	.284/11.6	.412/11.6	.474/11.2	.432/11.2	.314/11.2	.373/11.2	.391/11.6	.339/11.6	.260/11.2	.158/11.2
	15	.00/11.2	.126/11.6	.246/11.6	.366/11.6	.409/11.2	.376/11.2	.288/11.2	.361/11.2	.359/11.6	.321/11.6	.251/11.2	.154/11.2
	17	.00/11.2	.106/11.6	.208/11.6	.300/11.6	.345/11.2	.318/11.2	.248/11.6	.326/11.2	.314/11.6	.284/11.6	.225/11.2	.134/11.2
	19	.00/11.2	.089/11.6	.175/11.6	.254/11.6	.290/11.2	.268/11.2	.212/11.6	.288/11.2	.270/11.6	.245/11.6	.196/11.2	.120/11.2
	21	.00/11.2	.076/11.6	.148/11.6	.214/11.6	.245/11.2	.227/11.6	.181/11.6	.212/11.2	.231/11.6	.212/11.6	.169/11.2	.104/11.2
10	7	.00/13.4	.110/12.8	.175/11.6	.233/10.1	.264/10.5	.253/9.0	.104/8.5	.136/7.0	.098/7.7	.055/7.7	.030/8.1	.014/8.1
	9	.00/13.4	.111/12.8	.142/11.6	.186/12.1	.207/10.8	.194/10.8	.096/10.5	.131/10.8	.188/9.5	.131/10.1	.081/10.1	.040/10.1
	11	.00/13.4	.100/12.8	.126/11.6	.166/12.6	.187/12.6	.176/11.2	.091/11.2	.126/11.2	.164/11.6	.111/11.6	.068/12.6	.030/12.6
	13	.00/13.4	.088/12.8	.111/11.6	.146/12.6	.167/12.6	.156/11.2	.082/11.2	.116/12.1	.154/12.6	.101/11.6	.064/12.6	.028/12.6
	15	.00/13.4	.076/12.8	.101/11.6	.136/12.6	.157/12.6	.146/11.2	.077/11.2	.111/12.1	.149/12.6	.096/12.6	.058/12.6	.024/12.6
	17	.00/13.4	.065/12.8	.091/11.6	.126/12.6	.147/12.6	.136/11.2	.068/11.2	.101/12.1	.139/12.6	.086/12.6	.049/12.6	.020/12.6
	19	.00/13.4	.054/12.8	.081/11.6	.116/12.6	.137/12.6	.126/11.2	.059/11.2	.091/12.1	.129/12.6	.076/12.6	.040/12.6	.019/12.6
	21	.00/13.4	.043/12.8	.071/11.6	.106/12.6	.127/12.6	.116/11.2	.048/11.2	.081/12.1	.119/12.6	.064/12.6	.037/12.6	.016/12.6
15	7	.00/22.4	.034/20.9	.049/18.0	.064/14.3	.070/11.6	.057/9.2	.044/8.5	.061/7.5	.076/7.7	.041/7.9	.021/8.1	.010/8.1
	9	.00/20.3	.043/19.6	.110/17.5	.122/17.5	.146/14.3	.134/12.1	.077/10.5	.101/10.1	.134/9.2	.091/9.2	.057/9.2	.028/9.2
	11	.00/20.3	.051/19.6	.120/17.5	.146/15.0	.167/12.1	.156/11.2	.082/11.2	.101/12.1	.134/11.6	.091/11.6	.057/11.6	.028/11.6
	13	.00/20.3	.052/19.6	.120/17.5	.146/15.0	.167/12.1	.156/11.2	.082/11.2	.101/12.1	.134/11.6	.091/11.6	.057/11.6	.028/11.6
	15	.00/20.3	.049/19.6	.110/18.0	.136/15.3	.157/12.1	.146/11.2	.077/11.2	.101/12.1	.134/11.6	.091/11.6	.057/11.6	.028/11.6
	17	.00/20.3	.044/19.6	.097/18.0	.116/15.3	.137/12.1	.126/11.2	.068/11.2	.091/12.1	.129/12.6	.086/12.6	.049/12.6	.020/12.6
	19	.00/20.3	.039/19.6	.085/18.0	.105/15.3	.126/12.1	.116/11.2	.061/11.2	.081/12.1	.119/12.6	.076/12.6	.040/12.6	.019/12.6
	21	.00/20.3	.035/19.6	.074/18.0	.094/15.3	.115/12.1	.104/11.2	.057/11.2	.076/12.1	.114/12.6	.064/12.6	.037/12.6	.016/12.6
20	7	.00/69.8	.053/7.0	.060/24.2	.126/19.0	.149/13.4	.137/9.8	.099/8.5	.101/7.5	.064/7.7	.032/7.9	.016/8.1	.007/8.3
	9	.00/27.3	.045/26.2	.080/23.3	.175/19.0	.195/13.4	.184/10.8	.117/10.5	.146/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2
	11	.00/27.3	.047/26.2	.097/23.3	.194/19.0	.213/13.4	.202/11.2	.119/11.2	.148/12.1	.116/11.6	.075/11.6	.045/11.6	.021/11.6
	13	.00/27.3	.047/26.2	.100/23.3	.195/19.0	.213/13.4	.202/11.2	.119/11.2	.148/12.1	.116/11.6	.075/11.6	.045/11.6	.021/11.6
	15	.00/27.3	.044/26.2	.093/23.3	.185/19.0	.201/13.7	.190/11.6	.117/11.6	.146/12.1	.115/11.6	.074/11.6	.044/11.6	.020/11.6
	17	.00/27.3	.040/26.2	.084/23.3	.174/19.0	.191/13.7	.180/11.6	.110/11.6	.139/12.1	.108/11.6	.073/11.6	.043/11.6	.019/11.6
	19	.00/27.3	.036/26.2	.074/23.3	.165/19.0	.181/13.7	.170/11.6	.107/11.6	.136/12.1	.105/11.6	.072/11.6	.042/11.6	.018/11.6
	21	.00/27.3	.032/26.2	.065/23.3	.156/19.0	.177/14.0	.161/12.1	.103/11.6	.132/11.6	.102/11.6	.071/11.6	.041/11.6	.017/11.6
25	7	.00/7.9	.045/7.5	.095/7.0	.169/26.2	.277/16.5	.453/10.1	.094/8.3	.084/7.5	.054/7.7	.026/7.9	.013/8.1	.006/8.1
	9	.00/44.3	.044/44.3	.094/33.1	.153/24.2	.266/16.5	.507/11.2	.164/10.5	.127/9.8	.097/9.2	.062/9.5	.037/9.2	.017/9.2
	11	.00/37.0	.043/36.9	.102/29.9	.173/24.2	.304/16.5	.453/11.6	.211/11.2	.163/12.1	.133/11.6	.097/11.6	.066/11.2	.034/11.2
	13	.00/34.9	.046/33.1	.101/29.9	.151/24.2	.254/16.5	.409/11.6	.194/11.6	.150/12.1	.124/13.1	.092/13.1	.062/13.1	.032/13.1
	15	.00/34.9	.046/33.1	.104/29.9	.133/24.2	.217/16.5	.369/11.6	.170/11.6	.146/13.4	.116/14.6	.084/14.6	.054/14.6	.024/14.6
	17	.00/34.9	.043/33.1	.094/29.9	.116/24.2	.183/16.5	.320/11.6	.147/11.6	.127/13.7	.102/15.0	.071/14.6	.041/14.6	.016/14.6
	19	.00/34.9	.037/33.1	.075/29.9	.116/24.2	.183/16.5	.290/11.6	.147/11.6	.127/13.7	.102/15.0	.071/14.6	.041/14.6	.016/14.6
	21	.00/34.9	.033/33.1	.066/29.9	.101/24.2	.156/16.5	.253/11.6	.128/12.6	.113/13.7	.091/15.0	.061/14.6	.031/14.6	.011/14.6

NOTE: V IS SHIP SPEED IN KNOTS AND T₀ IS MODAL WAVE PERIOD IN SECONDS.

TABLE 9 - COMPARISON BETWEEN LONGCRESTED AND SHORTCRESTED WORST HEADING SHIP RESPONSES OF FF 1052 IN 10-FOOT SIGNIFICANT WAVE HEIGHT SEAS

SHIP RESPONSE		SHIP SPEED: 10 KNOTS					
		$T_o = 7$ sec		$T_o = 11$ sec		$T_o = 19$ sec	
		LC	SC	LC	SC	LC	SC
Point 3 Bullseye	ROLL	20.9/45	13.8/60	17.5/60	13.5/75	7.6/60	6.7/90
	PITCH	2.9/120	1.1/105	3.4/150	3.3/180	2.5/180	2.3/180
	\dot{L}_A ft/sec	6.7/75	5.1/90	5.4/105	4.5/90	3.2/105	2.8/90
	\ddot{L}_A g	.22/105	.16/90	.15/105	.12/105	.07/105	.05/105
	\dot{L}_V ft/sec	7.3/90	5.1/105	5.9/105	5.0/120	3.8/120	3.7/150
	\ddot{L}_V g	.25/90	.17/105	.17/105	.13/120	.08/105	.07/150
		SHIP SPEED: 20 KNOTS					
Point 3 Bullseye	ROLL	20.5/75	10.4/75	16.5/75	10.0/75	7.1/75	5.3/90
	PITCH	2.3/120	1.8/105	3.3/165	3.2/180	2.5/180	2.3/180
	\dot{L}_A	6.3/75	4.5/90	5.0/105	4.2/90	3.1/105	1.8/90
	\ddot{L}_A	.22/105	.15/105	.15/105	.11/105	.07/120	.05/105
	\dot{L}_V	7.7/105	5.4/105	6.7/120	6.0/135	4.4/150	4.4/180
	\ddot{L}_V	.30/105	.21/120	.22/120	.20/115	.11/165	.11/180

TYPE OF SEA REPRESENTATION	
LC = LONGCRESTED,	SC = SHORTCRESTED

20.9/45 = MAX EXPECTED SINGLE AMPLITUDE IN 200 CYCLES/FOR WORST HEADING

TABLE 10 - GENERAL SHIP MOTION SELECTION PROCESS

General Ship Motion Selection Process																																																																
Step	Variable	No of Selections	Range of Selections	Specific Example																																																												
1	Ship	Pick one of 5	DD963, DLG26, DE1078, FFG7, DE1040	DD963																																																												
2	Ship Speed	Pick one of 4	5, 10, 20 and 25 knots	10 knots																																																												
3	Sea Representation	Pick one of 2	Longcrested or shortcrested	Shortcrested																																																												
4	Predominant Heading a) longcrested b) shortcrested ^a	Pick one of 17 Pick one of 7	-30° (15°) 210° 45° (15°) 135°	105° predominant (requiring 30° (15°) 180° long- crested headings)																																																												
5	Seaway a) modal period, T ₀ b) significant wave height	Pick one of 3 Pick one	7, 11 and 19 seconds Any significant wave height up to 0.202 T ₀ ²	11 seconds 10 feet																																																												
6	Response a) motion b) type c) location	Pick up to 50 Pick one of 10 Pick one of 5 Pick one of 51	Wave Height, Surge, Sway, Heave, Roll, Pitch, Yaw, Longitudinal, Lateral, Vertical Displacement, Velocity, Acceleration, Force, Load Origin plus up to 50 points	14 <table><tr><th>Response</th><th>Motion</th><th>Type</th><th>Location</th></tr><tr><td>1</td><td>Wave Motion</td><td>Displacement</td><td>Origin</td></tr><tr><td>2</td><td>Heave</td><td>Displacement</td><td>Origin</td></tr><tr><td>3</td><td>Pitch</td><td>Angle</td><td>Origin</td></tr><tr><td>4</td><td>Roll</td><td>Angle</td><td>Origin</td></tr><tr><td>5</td><td>Lateral</td><td>Displacement</td><td>Helicopter</td></tr><tr><td>6</td><td>Vertical</td><td>Displacement</td><td>Deck Bullseye</td></tr><tr><td>7</td><td>Lateral</td><td>Velocity</td><td>Helicopter</td></tr><tr><td>8</td><td>Vertical</td><td>Velocity</td><td>Deck Bullseye</td></tr><tr><td>9</td><td>Lateral</td><td>Acceleration</td><td>Helicopter</td></tr><tr><td>10</td><td>Vertical</td><td>Acceleration</td><td>Deck Bullseye</td></tr><tr><td>11</td><td>Lateral</td><td>Force</td><td>Helicopter</td></tr><tr><td>12</td><td>Normal</td><td>Force</td><td>Deck Bullseye</td></tr><tr><td>13</td><td>Lateral</td><td>Shoring Load</td><td>Helicopter</td></tr><tr><td>14</td><td>Normal</td><td>Shoring Load</td><td>Deck Bullseye</td></tr></table>	Response	Motion	Type	Location	1	Wave Motion	Displacement	Origin	2	Heave	Displacement	Origin	3	Pitch	Angle	Origin	4	Roll	Angle	Origin	5	Lateral	Displacement	Helicopter	6	Vertical	Displacement	Deck Bullseye	7	Lateral	Velocity	Helicopter	8	Vertical	Velocity	Deck Bullseye	9	Lateral	Acceleration	Helicopter	10	Vertical	Acceleration	Deck Bullseye	11	Lateral	Force	Helicopter	12	Normal	Force	Deck Bullseye	13	Lateral	Shoring Load	Helicopter	14	Normal	Shoring Load	Deck Bullseye
Response	Motion	Type	Location																																																													
1	Wave Motion	Displacement	Origin																																																													
2	Heave	Displacement	Origin																																																													
3	Pitch	Angle	Origin																																																													
4	Roll	Angle	Origin																																																													
5	Lateral	Displacement	Helicopter																																																													
6	Vertical	Displacement	Deck Bullseye																																																													
7	Lateral	Velocity	Helicopter																																																													
8	Vertical	Velocity	Deck Bullseye																																																													
9	Lateral	Acceleration	Helicopter																																																													
10	Vertical	Acceleration	Deck Bullseye																																																													
11	Lateral	Force	Helicopter																																																													
12	Normal	Force	Deck Bullseye																																																													
13	Lateral	Shoring Load	Helicopter																																																													
14	Normal	Shoring Load	Deck Bullseye																																																													
7	Select Optional Output a) Print time histories b) Plot time histories	Pick up to 10 Pick up to 50	From responses on point tape From responses on point tape	Time History Printout Selected Time History Plots Selected																																																												

* Time histories for 11 longcrested headings are needed in order to generate one shortcrested time history, i.e., 5 headings on either side of the predominant heading contribute to the calculation of the shortcrested time history.

APPENDIX A

FREQUENCY DOMAIN DATA BASE

MICROFICHE

The response amplitude operators (RAO) and associated phase angles, as well as the root mean square values and associated encounter modal periods (RMS/T_{0E}) are presented on NMA Standard 48x microfiche. At the top of each microfiche is an eye-readable label containing the ship title, the type of tables presented (i.e., RAO or RMS) and the conditions for which the tables were generated. The 48X reduction ratio provides 15 frames per row and 18 frames per column containing the actual data (see Figure A-1). Information on the microfiche is read column by column.

The format for the RAO tables consists of a combination of two data frames per condition (i.e., one heading, one speed). The RAO values are presented in the first frame, followed by their associated phase angles in the next frame. Table 7 is an example of a typical RAO table.

The RMS tables are presented one frame per condition. Both longcrested and shortcrested RMS values are contained on each microfiche. An example of a RMS table is shown in Table 8.

BCD FILES

In addition to their availability on microfiche, the RAO and RMS/T_{0E} values are also contained on ten BCD files on disk pack ZMPK08 (see Table A-1). Accessing these files will produce hardcopy output in the same format as on the microfiche. The example in Table A-2 illustrates how to obtain the RAO tables for the FF 1052. The RAO values for the remaining ships as well as the RMS/T_{0E} tables can be retrieved in a similar manner.

EYE-READABLE TITLE INFORMATION																			
ROW	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
COLUMN		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Figure A-1 - Example of Standard 48x Microfiche Format

TABLE A-1 - TABLE OF DISK PACK STORAGE OF RAO AND RMS/T_{OE} DATA

Ship	Type	Headings (in 15-degree Increments)	Speeds (in 5-knot Increments)	File Name*
DD 963	RAO	0-180	5-25	DD963TAPE6RAO
DD 963	RMS	0-180	5-25	DD963TAPE6RMS
CG 26	RAO	0-180	5-25	DLG26TAPE6RAO
CG 26	RMS	0-180	5-25	DLG26TAPE6RMS
FF 1052	RAO	0-180	5-25	DE1078TAPE6RAO
FF 1052	RMS	0-180	5-25	DE1078TAPE6RMS
FFG 7	RAO	0-180	5-25	FFG7TAPE6RAO
FFG 7	RMS	0-180	5-25	FFG7TAPE6RMS
FF 1040	RAO	0-180	5-25	DE1040TAPE6RAO
FF 1040	RMS	0-180	5-25	DE1040TAPE6RMS

*Note: (1) All files are stored on Disk Pack ZMPK08 (VSN=DV4751) under User ID: CHZM

(2) File Name format: DD963|TAPE6|RAO

Ship Name Data Location Type of Data

APPENDIX B

ACCESS COMPUTER PROGRAM DOCUMENTATION

GENERAL INTRODUCTION

The "Time History Access Computer Program", THACP, was developed to access and manipulate the basic time histories that were generated and stored to be accessed by DTNSRDC's CDC 6700 computer. This basic program therefore provides all of the essential functions that will allow the user to employ the stored ship motion data for his own specialized application. Before listing the basic capabilities of THACP, it should be noted that the development of further programs that for example alter the basic seaway description to include swell, or to alter the math model of the shoring loads required to keep an object resting on the ship from moving, or develop specific math models that address the specialized requirements of a given NAVAIR program are not excluded by the format of the present version of THACP. Such latter specialized programs would, of course, still use the accessing or read capabilities of THACP.

LISTING OF THACP CAPABILITIES

At present THACP provides the capability to:

- (1) Read a file of origin time histories (longcrested or shortcrested) from either a disk pack, main disk, or magnetic tape.
- (2) Read a file of point time histories (longcrested or shortcrested) as defined on following pages.
- (3) Generate and save a file of shortcrested origin time histories.
- (4) Generate and save a file of longcrested or shortcrested point time histories.
- (5) Compute RMS, maximum and minimum values for origin time histories.
- (6) Compute average, standard deviations, maximum and minimum values for point time histories.
- (7) Print point time histories.
- (8) Plot point time histories.

IDENTIFICATION OF ORIGIN TIME HISTORY FILE

An origin time history file is the basic ship motion data base. This file contains for one ship at one particular heading and speed a set of 57 ship response or wave height time histories. That is, there are 18 responses plus one wave height for each of three different modal sea periods, $T_0 = 7, 11,$ and 19 seconds. All responses are calculated for a 10 ft significant wave

height and represent the ship responses at the origin of the ship motion coordinate system as per reference 1. This origin is located in the calm water waterplane, on the centerline at the longitudinal location of the center of gravity of the ship. All ship responses are referenced to this point.

The origin data file may contain either longcrested or shortcrested responses and wave height. The order of the data in the file is:

- | | |
|--|--|
| (1) Wave height | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (2) Surge | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (3) Sway | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (4) Heave | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (5) Roll | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (6) Pitch | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (7) Yaw | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (8) Surge velocity | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| . . . | |
| . . . | |
| . . . | |
| . . . | |
| (13) Yaw velocity | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (14) Surge acceleration | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| . . . | |
| . . . | |
| . . . | |
| . . . | |
| (19) Yaw acceleration | $(\tilde{\zeta}_w)_{1/3} = 10 \text{ feet}, T_o = 7 \text{ sec}$ |
| (20-38) Same as 1-19 except $T_o = 11 \text{ sec}$ | |
| (39-57) Same as 1-19 except $T_o = 19 \text{ sec}$ | |

IDENTIFICATION OF POINT TIME HISTORY FILE

Ship responses at locations other than the origin can be calculated using THACP and the origin time history file. For this purpose, the ship is assumed to rotate about its origin as a rigid body. When responses at points other than the origin are required, these points must be located relative to this origin. Since the origin, however, is not a commonly used reference for ship-board locations of points, the reference point location is specified at the aft perpendicular, on the centerline, and at the baseline as illustrated in Table 2.

The point time histories may be longcrested or shortcrested and contain from 1 to 50 responses at a specified significant wave height and modal period (7, 11, or 19 seconds only). These responses can be:

- (1) Any of the responses on the origin time history file.
- (2) The displacements, velocities or accelerations of the longitudinal, lateral, and vertical responses at specified points.
- (3) Lateral and normal forces and loads in the ship coordinate system at specified points.

LOCATION OF ORIGIN TIME HISTORY FILES

Disk Packs

The origin time history files which form the major portion of this ship motion data base are stored on disk packs in accordance with their file names. These names and their location on the disk pack are given in Table B-1. Thus the entire time history data base is contained on the seven disk packs designated as ZMPK06, ZMPACK, ZMPK03, ZMPK01, ZMPK07, ZMPK02, and ZMPK04. These disk packs, of course, can all be accessed by DTNSRDC's CDC 6700, in whatever order required by a user that has access to this computer.

Digital Tapes

Alternatively, if the user does not have remote access to DTNSRDC's computational facilities, a smaller subset of these origin time history files can be extracted from the DTNSRDC disk packs, copied on CDC tapes, and forwarded to the specific user.

An example to illustrate the location of the origin time histories on such data base tapes is given below. However, in order to use the data extracted from the disk packs, the user will also require THACP as well as the appropriate frequency domain data base. These are copied on the first tape in BCD format for use on other large digital computers. The resultant set of tapes thus contains the program required to access and manipulate the time domain ship motion data as well as the data itself.

Details about the format of these tapes for an example regarding the FF 1052* ship class are presented therefore to illustrate the location of the origin time history file subset stored on data base tapes.

Time histories for the DE 1078 at two speeds, 10 and 20 knots, were written on four digital tapes identified as THDB02,.....,THDB05. The source cards (FORTRAN IV) for the THACP as well as the RAO and RMS tables for the DE 1078 were written on tape THDB01. These five tapes were written on the CDC 6700 computer at DTNSRDC under the Scope 3.4 operating system. They are 7-track unlabeled Scope standard tape, and have a density of 800 BPI. Tape THDB01 is BCD and was written using the copy utility, COPYCF. Tapes THDB02,.....,THDB05 are binary and were written using the copy utility, COPYBF. Table B-2 provides a description of the contents of the five tapes.

THACP DATA CARD INPUT

General

The data card input for the THACP consists of 14 data card sets. Data card set 1 specifies the type of input time history file, whether origin or point. It also specifies whether a shortcrested origin time history file will be generated. Data card sets 2-7 specify the information required to generate a point time history file. Data card sets 8-10 are optional and are used to print the point time histories. Data card sets 11-14, also optional, allow the user to plot the point time histories on a Calcomp plotter. A more detailed explanation of each data card set is provided in the next section.

Description of THACP Input Data Card Sets

DATA CARD SET 1, One Card, Format (15)

ISTART, integer, column 5, program run option

ISTART = 0 (a) 11 longcrested origin time history files (TAPE20,...., TAPE30) are input, see example in Table B-3. Each file represents a component heading required in the generation of a shortcrested time history as shown in Figure 3. The shortcrested predominant heading, μ_{PRED} , is always associated with TAPE25.

$$\text{TAPE20} = \mu_{\text{PRED}} - 75^\circ$$

* It should be noted that at the time these data files were generated, the remaning of the DLG/s as CG/s and the DE's as FF's had not been officially performed. Thus the old ship designation was employed in labeling the files. In addition, it should be noted that the DE 1078, or properly the FF 1078, is a member of the FF 1052 ship class.

$$\text{TAPE21} = \mu_{\text{PRED}} - 60^\circ$$

$$\text{TAPE25} = \mu_{\text{PRED}}$$

$$\text{TAPE30} = \mu_{\text{PRED}} + 75^\circ$$

(b) 1 shortcrested origin time history file, TAPE40, is generated with predominant heading, μ_{PRED} , associated with TAPE25.

(c) 1 shortcrested point time history file, TAPE50, is generated for selected responses ($\text{NRESP} > 0$, Data Card Set 2).

ISTART = 1 (a) 1 origin time history file, either longcrested or shortcrested, is input as TAPE40. Each time history file contains a flag designating to the THACP program that the file is longcrested or shortcrested. Note that TAPE20,...,TAPE30 are not input.

(b) 1 point time history file, TAPE50, is generated if $\text{NRESP} > 0$. This file is either longcrested or shortcrested depending on whether TAPE40 is long or shortcrested.

ISTART = 2 (a) 1 long or shortcrested point time history file, TAPE50, is input and not generated.

Data card sets 2-7 are skipped if ISTART = 2.

DATA CARD SET 2, One Card, Format (15)

NRESP, integer, columns 4-5, no. of selected responses (max. of 50)

Remaining data card sets are skipped if $\text{NRESP} = 0$.

DATA CARD SET 3, One Card, Format (8A10)

TITL, alphanumeric, columns 1-80, title information for point time history tape, TAPE50.

DATA CARD SET 4, One Card, Format (2F10.5)

- (1) SIGWHT, floating point, columns 1-10, significant wave height in feet
- (2) PERMOD, floating point columns 11-20, modal period in seconds.

The origin input time histories contain responses for three Bretschneider wave spectra with modal periods of 7, 11, and 19 sec and significant wave height of 10 feet. SIGWHT allows the user to change significant wave height. PERMOD must be either 7, 11, or 19 seconds.

DATA CARD SET 5, One Card, Format (15)

NPOINT, integer, columns 4-5, no. of points on the hull desired (max. of 50)

Data card set 6 is skipped if NPOINT = 0.

DATA CARD SET 6, NPOINT Cards, Format (15, 3A10, 4F10.5)

- (1) IP, integer, columns 4-5, point number without regard to order, can be any number from one to 50
- (2) PNTITL, alphanumeric, columns 6-35, point title
- (3) XAP, floating point, columns 36-45, X coordinate measured from aft perpendicular

- (4) YCL, floating point, columns 46-55, Y coordinate measured from centerline, positive to starboard
- (5) ZBL, floating point, columns 56-65, Z coordinate measured from baseline at the point
- (6) DBLWL, floating point, columns 66-75, vertical distance from baseline to the waterline at the longitudinal location of the point.

DATA CARD SET 7, NRESP Cards, Format (15, 3A10, 315, F10.5)

- (1) IRESP, Integer, columns 4-5, response number
- (2) RSTITL, alphanumeric, columns 6-35, response title
- (3) IMOTN, Integer, columns 40, response desired

IMOTN = 0 - wave height at the origin

= 1 - surge or longitudinal

= 2 - sway or lateral

= 3 - heave or vertical

= 4 - roll

= 5 - pitch

= 6 - yaw

- (4) ITYPE, integer, columns 45, response type

ITYPE = 1 - displacement or angle

= 2 - velocity

= 3 - acceleration

= 4 - ship system force (including gravity)

= 5 - ship system load

- (5) IPOINT, integer, columns 46-50, point number

If IPOINT = 0, responses at the origin will be used.

- (6) XMU, floating point, columns 51-60, coefficient of friction used in load calculations (ITYPE = 5)

DATA CARD SET 8, One Card, Format (15)

NRPRNT, integer, column 5, number of response time histories to be printed
(max. of 10)

Data card sets 9 and 10 are skipped if NRPRNT = 0.

DATA CARD SET 9, One Card, Format (2F10.5)

- (1) PRSTRT, floating point, columns 1-10, printing start time in seconds
- (2) PREND, floating point, columns 11-20, printing stop time in seconds

DATA CARD SET 10, NRPRNT Cards, Format (15, A8)

- (1) IRPRNT, integer, columns 1-5, response number of time history to be printed
- (2) TLPRT, alphanumeric, columns 6-13, response title of time history to be printed (8 characters)

DATA CARD SET 11, One Card, Format (15)

NPLOT, integer, columns 1-5, no. of plots (1 plot contains the time histories for a pair of responses. Max. of 25 plots)

If NPLOT = 0, remaining data card sets are skipped

DATA CARD SET 12, Two Cards, Format (4A10/4A10)

FIRST CARD, FORMAT (4A10)

TITLE 1, alphanumeric, columns 1-40, top title on plots

SECOND CARD, FORMAT (4A10)

TITLE 2, alphanumeric, columns 1-40, second title on plots

DATA CARD SET 13, One Card, Format (3F10.5)

- (1) TSTART, floating point, columns 1-10, time within 1/2 hour when plot starts
- (2) TEND, floating point, columns 11-20, stop time
- (3) TINC, floating point, columns 21-30, time increment, (N Seconds/inch)

DATA CARD SET 14, 2XNPLOT Cards, Format (15,2A10,A2,18,2F10.5/15,2A10,A2,18,2F10.5)

FIRST CARD, FORMAT (15,2A10,A2,18,2F10.5)

- (1) IPLT, integer, columns 4-5, plot number
- (2) YTLTOP, alphanumeric, columns 6-27, y title for top response time history on plot (22 characters in y title)
- (3) IRTOP, Integer, columns 34-35, response no. top response plotted
- (4) YOTOP, floating point, columns 36-45, lower y scale value for top response
- (5) DYTOP, floating point, columns 46-55, y scale increment for top response (Y physical units/Inch)

SECOND CARD, FORMAT (15,2A10,A2,18,2F10.5)

- (1) IPLT, integer, columns 4-5, plot number
- (2) YTLBOT, alphanumeric, columns 6-27, y title for bottom response
- (3) IRBOT, integer, columns 34-35, response no. of bottom response
- (4) YOBOT, floating point, columns 36-45, lower y scale for bottom channel response
- (5) DYBOT, floating point, columns 46-55, y scale increment for bottom response

THACP INPUT EXAMPLES

General

Two examples illustrating the two different access procedures to the Non-Aviation Ship Series ship motion data base are developed. The first example (DD 963), discussed in the main text, considers the data user to access the data base directly from DTNSRDC's CDC 6700 terminals. The second example (DE 1078) considers the data user to specify at the outset a specific ship, and a series of ship speeds and headings which are then extracted by the DTNSRDC staff from the CDC 6700 disk storage, copied on magnetic tape (binary) and forwarded to the user along with a magnetic tape (Binary Coded Decimal, BCD) containing the computer programs required to extract and manipulate the ship motion data contained on the tapes. Thus in this second example, the user starts with a set of magnetic tapes, the first of which contains the programs required to recover the data from the remaining tapes.

Input for First Example: DD 963 From Disk Pack

Returning to the first example, i.e., DD 963, the steps involved in selecting from the data base the derived ship motion data are outlined briefly in Table 10. The reasons for the various selections are discussed in the main text. Thus in this case, fourteen different types of ship response data are selected. These include translational displacements, velocities, and accelerations at the landing deck bullseye, angular responses, forces exerted due to the ship motion on equipment or people on the ship, and shoring loads required to keep equipment resting on the ship deck from shifting due to these forces are selected. Further, the data is desired for the ship proceeding at 10 knots into shortcrested seas with a relative heading near the beam, i.e., 105 degrees. These irregular waves have a significant wave height of 10 feet and a modal period of 11 seconds.

A listing of a sample input is given in Table B-3. This example was used to obtain and save shortcrested time histories at the origin and for selected responses, to print desired response time histories, and to plot the time histories indicated.

The input deck, including control cards and input data cards, have been divided into 10 groups. The first seven card groups represent control cards and the last three card groups represent data cards. All of the card groups and some data card sets with a data card group are labeled in Table B-3. A brief description of the card groups follows:

CARD GROUPS:

- (1) CDC system control cards:
 - a. Job card with MTI (request for magnetic tape unit), associated with card group 4.
 - b. Charge card.
- (2) Mount disk pack ZMPK08 and retrieve THACP access program object file.
- (3) Mount disk pack ZMPK06 and retrieve the 11 longcrested origin time histories of DD 963 required to shortcrest. Note that the predominant heading must be TAPE25 which, in this case, is 105 degrees.
- (4) Attach the CDC Calcomp plotting package subroutines which will be loaded with the access program in group 6. Request the Calcomp plotting tape.
- (5) Request storage space on the main disk for the shortcrested origin time history file, TAPE40, and the shortcrested point time history file, TAPE50.
- (6) Control cards necessary to load and execute the access program. Unload Calcomp tape, TAPE7, after program execution.
- (7) Save TAPE40 and TAPE50 on the main disk. Note that the advantage to saving these files is that both can be used as input to THACP at some future time to plot, print or otherwise reanalyze this data.

- (8) Data Card Sets 1-7 are used to first shortcrest the origin time histories, saved on TAPE40, and then from this develop the short-crested point time histories, saved on TAPE50.
- (9) Data Card Sets 8-10 are used to print the shortcrested point time histories
- (10) Data Card Sets 11-14 are used to plot the shortcrested point time histories.

Input for Second Example: FF 1052 From Digital Tapes

The second example of using the Access Program illustrates that three steps are required in order to run THACP using digital tapes. The first step, shown in Table B4, involves retrieving the FORTRAN source cards for THACP from digital tape THDB01. The program is compiled and the object file, THACSOBJ, is saved on the main disk. In the second step, see Table B-5, the user copies the origin time histories for the eleven longcrested headings for the DE 1078 at 10 knots, 30°(15°)180°, from digital tapes THDB02 and THDB03 to the main disk. Finally, in step 3, Table B-6, the Access Program is run using the files that were saved on the main disk.

THACP OUTPUT EXAMPLE

General

The output format of the THACP results is illustrated by using the first input example, i.e., the DD 963. Of necessity, only limited samples of the output are illustrated. The output for the second example would, of course, be similar to that of the first and is thus omitted. Both tabular and plotted results are presented.

Tabular Results

THACP prints out six different types of tables, some of which are optional. The first two types refer to the source of the data since they define the input data cards and information about the origin time histories, whereas the last four tables are associated with the point time histories. Specifically then these tables are:

- (1) Table B-7 lists the data card input exactly as it was read in.
- (2) Table B-8 contains the RMS, maximum and minimum values for the 57 responses on the origin time history file. This table designates whether the origin file is longcrested or shortcrested. Table 2 is not printed if ISTART = 2, data card set 1.
- (3) Table B-9 contains a time history printout for up to 10 responses selected from the point file. This table is omitted if NPRNT = 0 (data card set 8).

- (4) Table B-10 lists the point description and x, y and z coordinates for up to 50 user specified points.
- (5) Table B-11 lists the average, standard deviation, maximum, and minimum values for all the responses on the point file.
- (6) Table B-12 lists the responses plotted from the point file. A typical plot is shown in Figure B-1.

Plotted Results

A CALCOMP Model 763 plotter at DTNSRDC was used to illustrate the format of the computer plotted time histories. A set of such time histories, as denoted in Table B-12 and Figures 8 and 9 of the main text was plotted. Figure B-1 provides a sample of these plots as they come from the plotter.

In order to perform these plots, a plot request (Form 10462/26), shown in Figure B-2, must be submitted with each TAPE7. The plot time will vary with the number of responses plotted. A pair of responses plotted at 50 sec/inch (1/2 hour time history) would take approximately 10 minutes to process. Further, a yellow punched card containing job order number, ID, and date must also accompany each tape.

ACCESS PROGRAM, SOURCE LISTING

The Access Program was written in FORTRAN IV on the CDC 6700 computer at DTNSRDC. It contains a main program, THACES, and seven subroutines, CARDS, SHCRTH, THTABL, THPNT, THANAL, THPLOT, and SIPL. The following five subroutines, PLOTS, SYMBOL, PLOT, AXIS, and LINE are part of the CALCOMP plotting package available at DTNSRDC. A listing is provided in Table B-13.

BEST AVAILABLE COPY

RESPONSE TIME HISTORY

00963

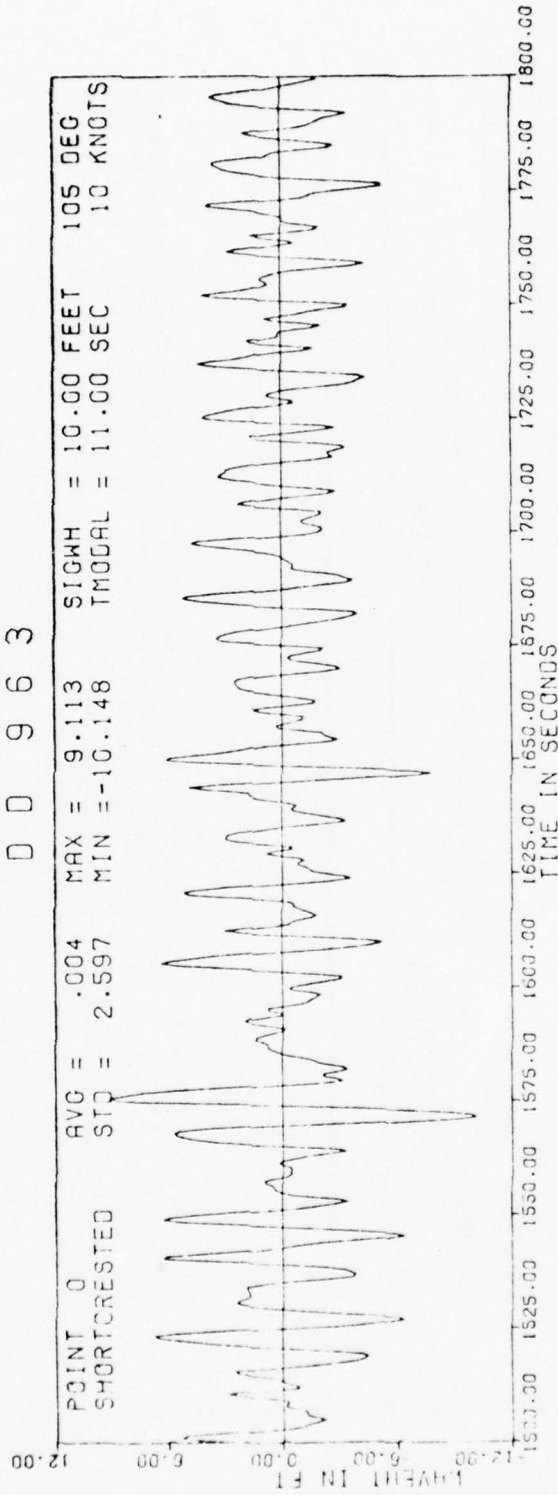


Figure B-1 - Sample Response Time History

TABLE B-1 - TABLE OF DISK PACK STORAGE FOR LONGCRESTED ORIGIN TIME HISTORIES AND ACCESS PROGRAM FILES

All Files Stored Under User ID: CHZM

Ship	Headings (in 15-degree increments)	Speeds (in knots)	Name of Disk Pack Setname (SN) Volser (VSN)	File Names of Origin Time Histories or Access Program Files
DD 963	-30° through 210°	5	ZMPK06	DD963TAPE10-3005, ..., DD963TAPE1021005*
DD 963	-30° through 210°	10	ZMPK06	DD963TAPE10-3010, ..., DD963TAPE1021010
DD 963	-30° through 210°	20	ZMPK06	. 20 .
DD 963	-30° through 210°	25	ZMPACK	. 25 .
CG 26	-30° through 210°	5	ZMPK03	DLG26TAPE10-3005, ..., DLG26TAPE1021005
CG 26	-30° through 210°	10	ZMPK01	. . .
CG 26	-30° through 210°	20	ZMPK01	. . .
CG 26	-30° through 210°	25	ZMPK01	. . .
FF 1052	-30° through 210°	5	ZMPK07	DE1078TAPE10-3005, ..., DE1078TAPE1021005
FF 1052	-30° through 210°	10	ZMPK07	. . .
FF 1052	-30° through 210°	20	ZMPK07	. . .
FF 1052	-30° through 210°	25	ZMPACK	. . .
FFG 7	-30° through 210°	5	ZMPK02	FFG7TAPE10-3005, ..., FFG7TAPE1021005
FFG 7	-30° through 210°	10	ZMPK02	. . .
FFG 7	-30° through 210°	20	ZMPK02	. . .
FFG 7	-30° through 210°	25	ZMPK03	. . .
FF 1040	-30° through 210°	5	ZMPK04	DE1040TAPE10-3005, ..., DE1040TAPE1021005
FF 1040	-30° through 210°	10	ZMPK04	. . .
FF 1040	-30° through 210°	20	ZMPK04	. . .
FF 1040	-30° through 210°	25	ZMPACK	DE1040TAPE10-3025, ..., DE1040TAPE1021025
			ZMPK08	THACSSOURCE, THACSOBJ**

* Origin Time History file name format: |DD963|TAPE10|-30|05|

Ship Name
Data Location
Ship Heading
Ship Speed

** Source and object files of Time History Access Program, THACP.

TABLE B-2 - TABLE OF DIGITAL TAPE PROGRAM, RAO, RMS, AND LONGCRESTED ORIGIN TIME HISTORIES

TAPE	FILE	TYPE	CONTENTS
THDB01	1	BCD	Source cards for the "Time History Access Program"
	2	BCD	RAO tables for the DE1078
	3	BCD	RMS tables for the DE1078
THDB02	1	BINARY	Time history, DE1078, -30° , 10 knots
	2	BINARY	Time history, DE1078, -15° , 10 knots
	3	BINARY	Time history, DE1078, 0° , 10 knots
	4	BINARY	Time history, DE1078, 15° , 10 knots
	5	BINARY	Time history, DE1078, 30° , 10 knots
	6	BINARY	Time history, DE1078, 45° , 10 knots
	7	BINARY	Time history, DE1078, 60° , 10 knots
	8	BINARY	Time history, DE1078, 75° , 10 knots
THDB03	9	BINARY	Time history, DE1078, 90° , 10 knots
	1	BINARY	Time History, DE1078, 105° , 10 knots
	2	BINARY	Time History, DE1078, 120° , 10 knots
	3	BINARY	Time History, DE1078, 135° , 10 knots
	4	BINARY	Time History, DE1078, 150° , 10 knots
	5	BINARY	Time History, DE1078, 165° , 10 knots
	6	BINARY	Time History, DE1078, 180° , 10 knots
	7	BINARY	Time History, DE1078, 195° , 10 knots
THDB04	8	BINARY	Time History, DE1078, 210° , 10 knots
	1	BINARY	Time History, DE1078, -30° , 20 knots
	2	BINARY	Time History, DE1078, -15° , 20 knots
	3	BINARY	Time History, DE1078, 0° , 20 knots
	4	BINARY	Time History, DE1078, 15° , 20 knots
	5	BINARY	Time History, DE1078, 30° , 20 knots
	6	BINARY	Time History, DE1078, 45° , 20 knots
	7	BINARY	Time History, DE1078, 60° , 20 knots
THDB05	8	BINARY	Time History, DE1078, 75° , 20 knots
	9	BINARY	Time History, DE1078, 90° , 20 knots
	1	BINARY	Time History, DE1078, 105° , 20 knots
	2	BINARY	Time History, DE1078, 120° , 20 knots
	3	BINARY	Time History, DE1078, 135° , 20 knots
	4	BINARY	Time History, DE1078, 150° , 20 knots
	5	BINARY	Time History, DE1078, 165° , 20 knots
	6	BINARY	Time History, DE1078, 180° , 20 knots
	7	BINARY	Time History, DE1078, 195° , 20 knots
	8	BINARY	Time History, DE1078, 210° , 20 knots

TABLE B-3 - CONTROL AND DATA CARDS FOR EXAMPLE 1

1568. W. MEYERS

1568.W.MEYERS

CONTROL CARDS
DATA CARDS

1 CHZMACS.CH130000.T300.P2.MT1.
CHARGE.CHZM.1156887002.PR.K.
PAUSE. JOB REQUIRES DISK PACK DV4751
2 MOUNT.VSN=DV4751.SN=ZMPK08.
ATTACH.ACS.THACSOBJ.ID=CHZM.MR=1.SN=ZMPK08.
PAUSE. JOB REQUIRES DISK PACK DV4739
MOUNT.VSN=DV4739.SN=ZMPK06.
ATTACH.TAPE20.DD963TAPE1003010.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE21.DD963TAPE1004510.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE22.DD963TAPE1006010.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE23.DD963TAPE1007510.ID=CHZM.MR=1.SN=ZMPK06.
3 ATTACH.TAPE24.DD963TAPE1009010.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE25.DD963TAPE1010510.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE26.DD963TAPE1012010.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE27.DD963TAPE1013510.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE28.DD963TAPE1015010.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE29.DD963TAPE1016510.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.TAPE30.DD963TAPE1018010.ID=CHZM.MR=1.SN=ZMPK06.
ATTACH.CALC763.
4 VSN.TAPE7=SLOT12=ZMPLUT.
REQUEST.TAPE7.HI.RING.
REQUEST.TAPE40.*PF.
5 REQUEST.TAPE50.*PF.
MAP.OFF.
LDSET(LIB=CALC763)
6 ACS.
RETURN.TAPE7.
7 CATALOG.TAPE40.DD963SCTH10510.ID=CHZM.MR=1.
CATALOG.TAPE50.DD963SCTH10510.ID=CHZM.MR=1.
00000000000000000000 END OF RECORD
0
14 DD963 SHORTCRESTED 105 DEG 10 KNOTS SIGWH = 10.0 FEET 10 = 11 SEC SET
10.0 11.0 DATA SET 3
1
3 HELICOPTER DECK BULLSEYE 141.0 0.0 51.0 19.4
1 WAVE HEIGHT 0 1 0 0.0
2 HEAVE 3 1 0 0.0
3 PITCH 5 1 0 0.0
4 ROLL 4 1 0 0.0
5 LATERAL DISPLACEMENT 2 1 3 0.0
6 VERTICAL DISPLACEMENT 3 1 3 0.0
7 LATERAL VELOCITY 2 2 3 0.0
8 VERTICAL VELOCITY 3 2 3 0.0
9 LATERAL ACCELERATION 2 3 3 0.0
10 VERTICAL ACCELERATION 3 3 3 0.0
11 LATERAL FORCE, FL, SHPSYS 2 4 3 0.0
12 NORMAL FORCE, FN, SHPSYS 3 4 3 0.0
13 LATERAL LOAD, SL, SHPSYS 2 5 3 0.5
14 NORMAL LOAD, SN, SHPSYS 3 5 3 0.5
10
1560. 1582.
1 WAVELHT
2 VERVEL
3 PITCH
4 ROLL
9 LATACC DATA SET 10
10 VERACC
11 FL
12 FN
13 SL
14 SN
6
RESPONSE TIME HISTORY DATA SET 12
DU 9 6 3
1500. 1400. 25.
1 WAVE IN FEET 1 -12.0 6.0
2 HEAVE IN FEET 2 -12.0 6.0
3 PITCH IN DEGREES 3 -12.0 6.0
4 ROLL IN DEGREES 4 -12.0 6.0
5 LAT. DISP. IN FEET 5 -12.0 6.0
6 VERT. DISP. IN FEET 6 -12.0 6.0
7 LAT. VEL. IN FT/SEC 7 -12.0 6.0
8 VERT. VEL. IN FT/SEC 8 -12.0 6.0
9 LAT. ACC. IN G 9 -0.4 0.2
10 VERT. ACC. IN G 10 -0.4 0.2
11 LAT. FORCE, FL, IN G 11 -0.4 0.2
12 NORM. FORCE, FN, IN G 12 -0.4 0.2
00000000000000000000 END OF FILE DATA SET 14

CHZMACS,CM55000,T200,P2,MT1.

CHARGE, CHZM, 1156887002, CC, K.

VSN.TAPE=SL0T12=TH0B01.

REQUEST, TAPE, HY, NURING.

REQUEST SOURCE, *PF.

COPYCF, TAPE, SOURCE.

CATALOG,SOURCE,THACSSOURCE,ID=CHZM,MR=1.

RETURN, TAPE.

REWIND, SOURCE.

REQUEST, OBJECT, *PF.

```
FTN,A,T,R=3,OPT=1,I=SOURCE,R=OBJECT.
```

CATALOG OBJECT THACSOBJ ID=CHZM,MR=1.
00000000-0000000000000000 END OF FILE

00000000J00000000000000000 END OF FILE

1568, W. MEYERS

TABLE B-5 - COPYING ORIGIN TIME HISTORY FILES FROM BINARY TAPE

```
CHZMACS,CM55000,T200,P2,MT2.
CHARGE,CHZM,1156887002,PR,K.
VSN,TAPE=SLOT13=THDB02.
REQUEST,TAPE,HY,NORING.
COPYBF,TAPE,NULL,4.
REQUEST,TAPE20,*PF.
COPYBF,TAPE,TAPE20.
CATALOG,TAPE20,DE1078TAPE1003010,ID=CHZM,MR=1.
REQUEST,TAPE21,*PF.
COPYBF,TAPE,TAPE21.
CATALOG,TAPE21,DE1078TAPE1004510,ID=CHZM,MR=1.
REQUEST,TAPE22,*PF.
COPYBF,TAPE,TAPE22.
CATALOG,TAPE22,DE1078TAPE1006010,ID=CHZM,MR=1.
REQUEST,TAPE23,*PF.
COPYBF,TAPE,TAPE23.
CATALOG,TAPE23,DE1078TAPE1007510,ID=CHZM,MR=1.
REQUEST,TAPE24,*PF.
COPYBF,TAPE,TAPE24.
CATALOG,TAPE24,DE1078TAPE1009010,ID=CHZM,MR=1.
RETURN,TAPE.
VSN,TAPE=SLOT14=THDB03.
REQUEST,TAPE,HY,NORING.
REQUEST,TAPE25,*PF.
COPYBF,TAPE,TAPE25.
CATALOG,TAPE25,DE1078TAPE1010510,ID=CHZM,MR=1.
REQUEST,TAPE26,*PF.
COPYBF,TAPE,TAPE26.
CATALOG,TAPE26,DE1078TAPE1012010,ID=CHZM,MR=1.
REQUEST,TAPE27,*PF.
COPYBF,TAPE,TAPE27.
CATALOG,TAPE27,DE1078TAPE1013510,ID=CHZM,MR=1.
REQUEST,TAPE28,*PF.
COPYBF,TAPE,TAPE28.
CATALOG,TAPE28,DE1078TAPE1015010,ID=CHZM,MR=1.
REQUEST,TAPE29,*PF.
COPYBF,TAPE,TAPE29.
CATALOG,TAPE29,DE1078TAPE1016510,ID=CHZM,MR=1.
REQUEST,TAPE30,*PF.
COPYBF,TAPE,TAPE30.
CATALOG,TAPE30,DE1078TAPE1018010,ID=CHZM,MR=1.
RETURN,TAPE.
00000000000000000000000000    END OF FILE
```

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```
CHZMACS,CM130000,T300,P2,M71.
CHARGE,CHZM,1156887002,PR,K.
ATTACH,ACS,THACSOBJ.ID=CHZM,MR=1.
ATTACH,TAPE20,DE107RTAPE1003010,ID=CHZM,MR=1.
ATTACH,TAPE21,DE107RTAPE1004510,ID=CHZM,MR=1.
ATTACH,TAPE22,DE107RTAPE1006010,ID=CHZM,MR=1.
ATTACH,TAPE23,DE107RTAPE1007510,ID=CHZM,MR=1.
ATTACH,TAPE24,DE107RTAPE1009010,ID=CHZM,MR=1.
ATTACH,TAPE25,DE107RTAPE1010510,ID=CHZM,MR=1.
ATTACH,TAPE26,DE107RTAPE1012010,ID=CHZM,MR=1.
ATTACH,TAPE27,DE107RTAPE1013510,ID=CHZM,MR=1.
ATTACH,TAPE28,DE107RTAPE1015010,ID=CHZM,MR=1.
ATTACH,TAPE29,DE107RTAPE1016510,ID=CHZM,MR=1.
ATTACH,TAPE30,DE107RTAPE1018010,ID=CHZM,MR=1.
ATTACH,CALC763.
VSN,TAPE7=SLOT12=ZMPLUT.
REQUEST,TAPE7,H1,RING.
REQUEST,TAPE40,*PF.
REQUEST,TAPE50,*PF.
MAP,OFF.
LDSET(LIB=CALC763)
ACS.
RETURN,TAPE7.
CATALOG,TAPE40,DE107RSCTH10510,ID=CHZM,MR=1.
CATALOG,TAPE50,DE107RSCTH10510,ID=CHZM,MR=1.
000000000000000000000000    END OF RECORD
```

1568, W. MEYERS

0
14
DE1078 SHORTCRESTED 105 DEG 10 KNOTS SIGWH = 10.0 FEET TO = 11 SEC
10.0 11.0

1						
3	HELICOPTER DECK BULLSEYE	90.0	0.0	38.0	15.5	
1	WAVE HEIGHT	0	1	0	0.0	
2	HEAVE	3	1	0	0.0	
3	PITCH	5	1	0	0.0	
4	ROLL	4	1	0	0.0	
5	LATERAL DISPLACEMENT	2	1	3	0.0	
6	VERTICAL DISPLACEMENT	3	1	3	0.0	
7	LATERAL VELOCITY	2	2	3	0.0	
8	VERTICAL VELOCITY	3	2	3	0.0	
9	LATERAL ACCELERATION	2	3	3	0.0	
10	VERTICAL ACCELERATION	3	3	3	0.0	
11	LATERAL FORCE, FL, SHPSYS	2	4	3	0.0	
12	NORMAL FORCE, FN, SHPSYS	3	4	3	0.0	
13	LATERAL LOAD, SL, SHPSYS	2	5	3	0.5	
14	NORMAL LOAD, SN, SHPSYS	3	5	3	0.5	

1560. 1582.

1 WAVEHT
8 VERVEL
3 PITCH
4 ROLL
9 LATACC
10 VERACC
11 FL
12 FN
13 SL
14 SV
6

RESPONSE TIME HISTORY
D E 1 0 7 8

```

      0. E   P V G
1500.    1800.    25.
1WAVE IN FEET          1     -12.0       6.0
1HEAVE IN FEET         2     -12.0       6.0
2PITCH IN DEGREES      3     -12.0       6.0
2ROLL IN DEGREES       4     -12.0       6.0
3LATE DISP. IN FEET    5     -12.0       6.0
3VERT. DISP. IN FEET   6     -12.0       6.0
4LATE VEL. IN FT/SEC    7     -12.0       6.0
4VERT. VEL. IN FT/SEC   8     -12.0       6.0
5LATE ACC. IN G        9      -0.4       0.2
5VERT. ACC. IN G       10     -0.4       0.2
6LATE FORCE/Ft. IN G    11     -0.4       0.2
6VIBRM. FORCE/Ft. IN G  12      0.4       0.2
00000000.000000000000000 END OF FILE

```

TABLE B-7 - OUTPUT - DATA CARD INPUT

DATA CARD INPUT

```

0
14
DD963 SHORTCRESTED 105 DEG 10 KNOTS SIGWH = 10.0 FEET T0 = 11 SEC
10.00000 11.00000
1
1 HELICOPTER DECK BULLSEYE 141.00000 0.00000 51.00000 19.40000
1 WAVE HEIGHT 0 1 0 0.00000
2 HEAVE 3 1 0 0.00000
3 PITCH 5 1 0 0.00000
4 ROLL 4 1 0 0.00000
5 LATERAL DISPLACEMENT 2 1 3 0.00000
6 VERTICAL DISPLACEMENT 3 1 3 0.00000
7 LATERAL VELOCITY 2 2 3 0.00000
8 VERTICAL VELOCITY 3 2 3 0.00000
9 LATERAL ACCELERATION 2 3 3 0.00000
10 VERTICAL ACCELERATION 3 3 3 0.00000
11 LATERAL FORCE, FL, SHPSYS 2 4 3 0.00000
12 NORMAL FORCE, FN, SHPSYS 3 4 3 0.00000
13 LATERAL LOAD, SL, SHPSYS 2 5 3 .50000
14 NORMAL LOAD, SN, SHPSYS 3 5 3 .50000
10
1560.000001585.00000
1 WAVEHT
8 VEHVEL
3 PITCH
4 ROLL
9 LATACC
10 VERACC
11 FL
12 FN
13 SL
14 SN
6

```

RESPONSE TIME HISTORY

D D 9 6 3

1500.000001800.00000 25.00000

```

1 WAVE IN FEET 1 -12.00000 6.00000
1 HEAVE IN FEET 2 -12.00000 6.00000
2 PITCH IN DEGREES 3 -12.00000 6.00000
2 ROLL IN DEGREES 4 -12.00000 6.00000
3 LATE. DISP. IN FEET 5 -12.00000 6.00000
3 VERT. DISP. IN FEET 6 -12.00000 6.00000
4 LATE. VEL. IN FT/SEC 7 -12.00000 6.00000
4 VERT. VEL. IN FT/SEC 8 -12.00000 6.00000
5 LATE. ACC. IN G 9 -.40000 .20000
5 VERT. ACC. IN G 10 -.40000 .20000
6 LATE. FORCE, FL, IN G 11 -.40000 .20000
6 NORM. FORCE, FN, IN G 12 -.80000 .20000

```

END DATA CARD INPUT

TABLE B-8 - OUTPUT - ORIGIN TIME HISTORY DATA

UD963

SHORTCRESTED

CHAN	TITLE	SIGNIF. WM = 10.00 FEET MODAL PER = 7.0 SEC				SIGNIF. WM = 10.00 FEET MODAL PER = 11.0 SEC				SIGNIF. WM = 10.00 FEET MODAL PER = 19.0 SEC			
		RMS	MAX	MIN	HMS	RMS	MAX	MIN	HMS	RMS	MAX	MIN	HMS
1	AVEHT	2.41745	8.16798	-8.82781	2.59713	9.11257	-10.14841	2.57573	7.78223	2.57573	7.78223	-7.32510	2.57573
2	SURGE	.18311	.60467	-.56326	.46823	1.36136	-1.48743	.69642	2.50181	.69642	2.50181	-2.29777	.69642
3	SWAY	.75426	3.33908	-3.39104	1.50555	4.53157	-5.24852	2.08346	5.50677	2.08346	5.50677	-5.78972	2.08346
4	HEAVE	1.55631	7.10888	-6.27356	2.21562	8.12290	-8.10649	2.45750	7.51244	2.45750	7.51244	-6.70916	2.45750
5	ROLL	1.66431	6.33035	-6.36131	3.04416	9.64915	-11.46536	2.01095	5.64885	2.01095	5.64885	-6.29993	2.01095
6	PITCH	.47556	1.56535	-1.47446	.62204	2.28519	-2.25075	.40957	1.16691	.40957	1.16691	-1.11226	.40957
7	YAW	.22146	.86594	-.93859	.31136	1.04459	-.95804	.24320	.66550	.24320	.66550	-.74278	.24320
8	SURGE VEL	.13947	.45118	-.44612	.27683	.89370	-.83158	.28234	.86434	.28234	.86434	-.95427	.28234
9	SWAY VEL	.66334	2.88643	-2.61322	.90822	3.25061	-3.18658	.84614	2.37425	.84614	2.37425	-2.47048	.84614
10	HEAVE VEL	1.49315	5.99738	-6.22431	1.56437	6.17803	-5.61778	1.12493	3.55196	1.12493	3.55196	-3.48304	1.12493
11	ROLL VEL	1.25290	4.46102	-4.89228	1.87007	6.94844	-6.90945	1.11198	3.67198	1.11198	3.67198	-3.53070	1.11198
12	PITCH VEL	.45870	1.45021	-1.49242	.49476	1.82634	-1.91814	.25467	.83496	.25467	.83496	-.75996	.25467
13	YAW VEL	.21039	.72584	-.95644	.21026	.66160	-.81653	.12557	.39258	.12557	.39258	-.41962	.12557
14	SURGE ACC	.00340	.01160	-.01204	.00580	.02063	-.02045	.00426	.01219	.00426	.01219	-.01371	.00426
15	SWAY ACC	.02005	.06734	-.07473	.01930	.07269	-.06687	.01257	.03913	.01257	.03913	-.03581	.01257
16	HEAVE ACC	.04721	.15674	-.17804	.03942	.14724	-.15407	.02030	.06946	.02030	.06946	-.06750	.02030
17	ROLL ACC	1.04647	4.26789	-3.81063	1.24622	4.87335	-3.83366	.66618	2.38471	.66618	2.38471	-1.87757	.66618
18	PITCH ACC	.47342	1.51337	-1.58843	.43026	1.53657	-1.75168	.19645	.67364	.19645	.67364	-.70443	.19645
19	YAW ACC	.23132	.93259	-.88467	.17306	.69051	-.68251	.08121	.26284	.08121	.26284	-.32252	.08121

TABLE B-9 - OUTPUT - POINT TIME HISTORY

DD963 SHORTCRESTED 105 DEG 10 KNOTS SIGWH = 10.0 FEET T0 = 11 SEC

SHORTCRESTED

RESPONSE TIME HISTORIES

TIME	1- WAVEHT	8- VERVEL	3- PITCH	4- ROLL	9- LATACC	10- VERACC	11- FL	12- FN	13- SL	14- SN
1560.0	-46747	10845	24309	-1.23803	.00187	.03810	-.02056	1.03789	0.00000	0.00000
1560.5	-46241	68880	16078	-1.64017	.01095	.03202	-.01859	1.03191	0.00000	0.00000
1561.0	-01003	107780	-03922	-1.94773	.01055	.01464	-.02465	1.01440	0.00000	0.00000
1561.5	20421	113209	-31401	-2.22023	.00124	-.00834	-.03718	.99095	0.00000	0.00000
1562.0	-16983	83569	-59678	-2.25696	-.01092	-.02741	-.04921	.97135	0.00000	0.00000
1562.5	-78128	31276	-81520	-2.04068	-.01896	-.03555	-.05329	.96306	0.00000	0.00000
1563.0	-140038	-24284	-91793	-1.57308	-.01925	-.03127	-.04584	.96771	0.00000	0.00000
1563.5	-237126	-64794	-88157	-0.91889	-.01203	-.01745	-.02779	.98212	0.00000	0.00000
1564.0	-330555	-79187	-71133	-.01826	-.00017	-.00006	-.00336	.99985	0.00000	0.00000
1564.5	-231139	-66818	-43292	.52454	.01238	.01471	.02167	1.01452	0.00000	0.00000
1565.0	-54916	-34493	-07929	1.11235	.02242	.02371	.04229	1.02308	0.00000	0.00000
1565.5	202215	.06434	31129	1.52173	.02853	.02615	.05577	1.02502	0.00000	0.00000
1566.0	368064	46544	70049	1.72174	.03079	.02226	.06169	1.02079	0.00000	0.00000
1566.5	454345	76384	104725	1.70142	.03004	.01383	.06012	1.01233	0.00000	0.00000
1567.0	521064	90381	130476	1.46597	.02660	.00291	.05224	1.00164	0.00000	0.00000
1567.5	558749	85074	142050	1.04226	.01943	-.01000	.03743	.98918	0.00000	0.00000
1568.0	570629	57995	134781	.48938	.00694	-.02362	.01528	.97602	0.00000	0.00000
1568.5	535965	10249	106114	-.09979	.01132	-.03500	-.01300	.96481	0.00000	0.00000
1569.0	401266	-53200	57047	-.61321	-.03393	-.04291	-.04417	.95662	0.00000	0.00000
1569.5	127391	-126888	-.06527	-.94153	-.05734	-.04747	-.07299	.95146	0.00000	0.00000
1570.0	-260753	-203380	-.74154	-.99787	-.07578	-.04560	-.09239	.95286	0.00000	0.00000
1570.5	-654365	-268133	-132400	-.73652	-.08294	-.03235	-.09537	.96624	0.00000	0.00000
1571.0	-911711	-301206	-168833	-.16845	-.07495	-.00669	-.07787	.99266	0.00000	0.00000
1571.5	-1014841	-245075	-175306	-.63331	-.05148	.02768	-.04012	1.02771	0.00000	0.00000
1572.0	-93156	-210530	-149884	1.53663	-.01540	.06431	.01315	1.06398	0.00000	0.00000
1572.5	-873511	-.81211	-.97337	2.36067	.02710	.09429	.07215	1.09209	0.00000	0.00000
1573.0	-658364	84686	-.28021	2.70621	.06732	.10840	.12343	1.10355	0.00000	0.00000
1573.5	-345124	256845	44552	3.00745	.09749	.10200	.15518	1.09533	0.00000	0.00000
1574.0	43361	402834	106481	2.57940	.11368	.07640	.16204	1.07040	0.00000	0.00000
1574.5	387885	496731	146020	1.62821	.11500	.03849	.14446	1.03447	0.00000	0.00000
1575.0	766600	522924	158615	1.34942	.10151	-.00623	.10558	.99298	0.00000	0.00000
1575.5	411257	476212	134509	-1.45965	.07376	.05110	.04956	.95021	0.00000	0.00000
1576.0	870110	361227	87123	-3.26628	.03336	-.09012	-.01954	.91020	0.00000	0.00000
1576.5	871777	192074	23963	-4.95107	-.01588	-.11776	-.09196	.87757	0.00000	0.00000
1577.0	717477	-.04053	-.41563	-6.24782	-.06635	-.12951	-.16069	.85808	0.00000	0.00000
1577.5	543625	-213168	-.95700	-6.89613	-.06635	-.12951	-.16069	.85808	0.00000	0.00000
1578.0	291976	-345553	-127510	-6.70570	-.0710	-.12109	-.21194	.85956	0.00000	0.00000
1578.5	17841	492841	-131791	-5.61642	-.12452	-.09012	-.23389	.88843	0.00000	0.00000
1579.0	-214052	-515926	-110084	-3.72164	-.12606	-.04152	-.21926	.94130	0.00000	0.00000
1579.5	-318970	456280	-.69326	-1.25322	-.10151	.01246	-.16702	1.00355	0.00000	0.00000
1580.0	-279145	-331445	-.14626	1.45567	-.06068	.05983	-.08385	1.05818	0.00000	0.00000
1580.5	-211712	-170800	27996	1.45567	-.01284	.09243	1.09240	1.09240	0.00000	0.00000
1581.0	-216652	-.12431	64270	6.12641	.03042	.10340	.10774	1.09853	0.00000	0.00000
1581.5	-286350	107550	83979	7.49602	.05813	.08974	.17410	1.07724	0.00000	0.00000
1582.0	-336616	168028	86550	8.03600	.05731	.20374	.20374	1.03950	0.00000	0.00000
1582.5					.05769	.19942		.99969	0.00000	0.00000

TABLE B-10 - OUTPUT - LOCATION OF POINT OR POINTS

UD963 SHORTCUTTED 105 DEG 10 KNOTS SIGWH = 10.0 FEET T0 = 11 SEC

POINT TABLE

ORIGIN IS 258.07 FEET FORWARD OF AFT PERPENDICULAR

POINT	TITLE	XAP	YCL	ZBL	DMLWL	XSTAR	YSTAR	ZSTAR
3	HELICOPTER DECK BULLSEYE	141.00	0.00	51.00	19.40	117.07	0.00	31.60

TABLE B-11 - OUTPUT - POINT TIME HISTORY STATISTICS

DD963 SHORTCRESTED 105 DEG 10 KNOTS SIGWH = 10.0 FEET T0 = 11 SEC

SHORTCRESTED

HEADING = 105. DEG
SAMPLE RATE = 2.00 SAM/SEC
SPEED = 10.00 KNOTS
RUN TIME = 1800.00 SEC

SIGNIFICANT WAVE HEIGHT = 10.00 FEET
MODAL WAVE PERIOD = 11.0 SEC

RESPONSE TIME HISTORY STATISTICS

RESP	POINT	TITLE	AVG	STDEV	MAX	MIN
1	0	WAVE HEIGHT	.00412	2.59713	9.11257	-10.14841
2	0	HEAVE	.00365	2.21562	8.12290	-8.10649
3	0	PITCH	.00008	.62204	2.28519	-2.25075
4	0	ROLL	.00126	3.04416	9.64915	-11.46536
5	3	LATERAL DISPLACEMENT	.00015	2.19825	7.67914	-7.36700
6	3	VERTICAL DISPLACEMENT	.00349	2.03097	8.09575	-6.60430
7	3	LATERAL VELOCITY	.00109	1.50778	5.60459	-5.29986
8	3	VERTICAL VELOCITY	-.00045	1.39521	5.22424	-5.42169
9	3	LATERAL ACCELERATION	.00000	.03550	.12820	-.14879
10	3	VERTICAL ACCELERATION	-.00003	.03438	.14030	-.14106
11	3	LATERAL FORCE, FL, SHPSYS	.00082	.07948	.26254	-.30530
12	3	NORMAL FORCE, FN, SHPSYS	.99738	.03453	1.13726	.83188
13	3	LATERAL LOAD, SL, SHPSYS	0.00000	0.00000	0.00000	0.00000
14	3	NORMAL LOAD, SN, SHPSYS	0.00000	0.00000	0.00000	0.00000

TABLE B-12 - OUTPUT - PLOTTED POINT TIME HISTORIES AND SCALES

DU963 SHORTCRESTED 105 DEG 10 KNOTS SIGMH = 10.0 FEET T0 = 11 SEC

TIME PLOTTED = 1500.00 TO 1600.00 SECONDS
TIME INCREMENT = 25.00 SECONDS/INCH

PLOT RESP POINT		TITLE	YMIN	YMAX	UY
1	1	0 WAVE IN FEET	-12.00	12.00	6.00
1	2	0 HEAVE IN FEET	-12.00	12.00	6.00
2	3	0 PITCH IN DEGREES	-12.00	12.00	6.00
2	4	0 ROLL IN DEGREES	-12.00	12.00	6.00
3	5	3 LATE. DISP. IN FEET	-12.00	12.00	6.00
3	6	3 VERT. DISP. IN FEET	-12.00	12.00	6.00
4	7	3 LATE. VEL. IN FT/SEC	-12.00	12.00	6.00
4	8	3 VERT. VEL. IN FT/SEC	-12.00	12.00	6.00
5	9	3 LATE. ACC. IN G	-.40	.40	.20
5	10	3 VERT. ACC. IN G	-.40	.40	.20
6	11	3 LATE. FORCE, FL, IN G	-.40	.40	.20
6	12	3 NORM. FORCE, FN, IN G	.80	1.60	.20

PLOTS COMPLETED.

TABLE B-13 - ACCESS PROGRAM, THACP SOURCE LISTING

*DECK THAC		
PROGRAM THACES (INPUT,OUTPUT,TAPE5=INPUT,TAPE6=OUTPUT,TAPE7,	THAC	2
2 TAPE20,TAPE21,TAPE22,TAPE23,TAPE24,TAPE25,TAPE26,TAPE27,TAPE28,	THAC	3
2 TAPE29,TAPE30,TAPE40,TAPE50)	THAC	4
COMMON /BK1/ DUM1(51)	THAC	5
COMMON /BK2/ NRESP,DUM2(912)	THAC	6
COMMON /BK3/ DUM3(23)	THAC	7
COMMON /BK4/ ISTART,NPLOT,DUM4(311)	THAC	8
COMMON /BK5/ DUM5(13516)	THAC	9
CALL CARDS	THAC	10
IF (ISTART .EQ. 2) GO TO 10	THAC	11
IF (ISTART .EQ. 0) CALL SHCRTH	THAC	12
CALL THTABL	THAC	13
IF (NRESP .EQ. 0) STOP	THAC	14
CALL THPNT	THAC	15
10 CALL THANAL	THAC	16
IF (NPLOT .GT. 0) CALL THPLOT	THAC	17
STOP	THAC	18
END	THAC	19
*DECK CARD		
SUBROUTINE CARDS	CARD	2
COMMON /BK1/ TITLE(8),HEAD,SPEED,NSPEC,SIGWH(3),TMOAL(3),	CARD	3
2 PI,X2PI,RO,NW,DW,NCHN,NREC,KPTS,UT,SR,TRUN,NPTS,CTITL(19),	CARD	4
2 WVSLOP,TPST,ELL	CARD	5
COMMON /BK2/ NRESP,TITL(8),SIGWHT,PERMOD,NPOINT,IPNT(50),	CARD	6
2 PNTITL(3,50),XAP(50),YCL(50),ZBL(50),DBLWL(50),DAPD,XSTAR(50),	CARD	7
2 YSTAR(50),ZSTAR(50),RSTITL(3,50),IMOTN(50),ITYPE(50),IPOINT(50),	CARD	8
2 XMU(50)	CARD	9
COMMON /BK3/ NRPRNT,PRSTRT,PREND,IRPRNT(10),TLPRNT(10)	CARD	10
COMMON /BK4/ ISTART,NPLOT,TITLE1(4),TITLE2(4),TSTART,TEND,TINC,	CARD	11
2 YTLTOP(3,25),IRTOP(25),YOTOP(25),DYTOP(25),YTLBOT(3,25),	CARD	12
2 IRBOT(25),YOBOT(25),DYBOT(25)	CARD	13
C	CARD	14
C-----	CARD	15
C START DATA CARD INPUT	CARD	16
WRITE (6,1000)	CARD	17
1000 FORMAT (*1 DATA CARD INPUT*//)	CARD	18
C	CARD	19
C-----	CARD	20
C DATA CARD SET 1	CARD	21
READ (5,1010) ISTART	CARD	22
WRITE (6,1020) ISTART	CARD	23
1010 FORMAT (10I5)	CARD	24
1020 FORMAT (2X,10I5)	CARD	25
IF (ISTART .EQ. 2) GO TO 40	CARD	26
C	CARD	27
C-----	CARD	28
C DATA CARD SET 2	CARD	29
READ (5,1010) NRESP	CARD	30
WRITE (6,1020) NRESP	CARD	31

IF (NRESP .EQ. 0) GO TO 200	CARD 32
C	CARD 33
C-----	CARD 34
C DATA CARD SET 3	CARD 35
READ (5,1030) TITL	CARD 36
WRITE (6,1040) TITL	CARD 37
1030 FORMAT (8A10)	CARD 38
1040 FORMAT (2X,8A10)	CARD 39
C	CARD 40
C-----	CARD 41
C DATA CARD SET 4	CARD 42
READ (5,1050) SIGWHT,PERMOD	CARD 43
WRITE (6,1060) SIGWHT,PERMOD	CARD 44
1050 FORMAT (3F10,5)	CARD 45
1060 FORMAT (2X,3F10,5)	CARD 46
C	CARD 47
C-----	CARD 48
C DATA CARD SET 5	CARD 49
READ (5,1010) NPOINT	CARD 50
WRITE (6,1020) NPOINT	CARD 51
IF (NPOINT .EQ. 0) GO TO 20	CARD 52
C	CARD 53
C-----	CARD 54
C DATA CARD SET 6	CARD 55
DO 10 N=1,NPOINT	CARD 56
READ (5,1070) IP,(PNTITL(I,IP),I=1,3),XAP(IP),YCL(IP),ZBL(IP),	CARD 57
2 DBLWL(IP)	CARD 58
WRITE (6,1080) IP,(PNTITL(I,IP),I=1,3),XAP(IP),YCL(IP),ZBL(IP),	CARD 59
2 DBLWL(IP)	CARD 60
1070 FORMAT (15,3A10,4F10,5)	CARD 61
1080 FORMAT (2X,15,3A10,4F10,5)	CARD 62
IPNT(N) = IP	CARD 63
10 CONTINUE	CARD 64
C	CARD 65
C-----	CARD 66
C DATA CARD SET 7	CARD 67
2) DO 30 N=1,NRESP	CARD 68
READ (5,1090) IRESP,(RSTITL(I,N),I=1,3),IMOTN(N),ITYPE(N),	CARD 69
2 IPOINT(N),XMU(N)	CARD 70
WRITE (6,1100) IRESP,(RSTITL(I,N),I=1,3),IMOTN(N),ITYPE(N),	CARD 71
2 IPOINT(N),XMU(N)	CARD 72
1090 FORMAT (15,3A10,3I5,F10,5)	CARD 73
1100 FORMAT (2X,15,3A10,3I5,F10,5)	CARD 74
30 CONTINUE	CARD 75
C	CARD 76
C-----	CARD 77
C DATA CARD SET 8	CARD 78
40 READ (5,1010) NRPRNT	CARD 79
WRITE (6,1020) NRPRNT	CARD 80
IF (NRPRNT .EQ. 0) GO TO 60	CARD 81

C		CARD 82
C	-----	CARD 83
C	DATA CARD SET 9	CARD 84
	READ (5,1050) PRSTRT,PREND	CARD 85
	WRITE (6,1060) PRSTRT,PREND	CARD 86
C		CARD 87
C	-----	CARD 88
C	DATA CARD SET 10	CARD 89
	DO 50 N=1,NRPRNT	CARD 90
	READ (5,1110) IRPRNT(N),TLPRNT(N)	CARD 91
	WRITE (6,1120) IRPRNT(N),TLPRNT(N)	CARD 92
1110	FORMAT (15,A8)	CARD 93
1120	FORMAT (2X,15,A8)	CARD 94
50	CONTINUE	CARD 95
C		CARD 96
C	-----	CARD 97
C	DATA CARD SET 11	CARD 98
60	READ (5,1010) NPLOT	CARD 99
	WRITE (6,1020) NPLOT	CARD 100
	IF (NPLOT .EQ. 0) GO TO 200	CARD 101
C		CARD 102
C	-----	CARD 103
C	DATA CARD SET 12	CARD 104
	READ (5,1030) TITLE1	CARD 105
	WRITE (6,1040) TITLE1	CARD 106
	READ (5,1030) TITLE2	CARD 107
	WRITE (6,1040) TITLE2	CARD 108
C		CARD 109
C	-----	CARD 110
C	DATA CARD SET 13	CARD 111
	READ (5,1050) TSTART,TEND,TINC	CARD 112
	WRITE (6,1060) TSTART,TEND,TINC	CARD 113
C		CARD 114
C	-----	CARD 115
C	DATA CARD SET 14	CARD 116
	DO 70 N=1,NPLOT	CARD 117
	READ (5,1130) IPLT,(YTLTOP(I,N),I=1,3),IRTOP(N),Y0TOP(N),	CARD 118
2	DYTOP(N)	CARD 119
	WRITE (6,1140) IPLT,(YTLTOP(I,N),I=1,3),IRTOP(N),Y0TOP(N),	CARD 120
2	DYTOP(N)	CARD 121
	READ (5,1130) IPLT,(YTLBOT(I,N),I=1,3),IRBOT(N),Y0BOT(N),	CARD 122
2	DYBOT(N)	CARD 123
	WRITE (6,1140) IPLT,(YTLBOT(I,N),I=1,3),IRBOT(N),Y0BOT(N),	CARD 124
2	DYBOT(N)	CARD 125
1130	FORMAT (15,2A10,A2,I8,2F10.5)	CARD 126
1140	FORMAT (2X,15,2A10,A2,I8,2F10.5)	CARD 127
70	CONTINUE	CARD 128
200	WRITE (6,2000)	CARD 129
2000	FORMAT (///* END DATA CARD INPUT*)	CARD 130
C		CARD 131

C	-----	CARD 132
C	END DATA CARD INPUT	CARD 133
C	RETURN	CARD 134
	END	CARD 135
		CARD 136
*DECK SHCR		
	SUBROUTINE SHCRTH	SHCR 2
C	SHORTCRESTED TIME HISTORY SUBROUTINE	SHCR 3
	COMMON /HK1/ TITLE(8),HEAD,SPEED,NSPEC,SIGWH(3),TMODAL(3),	SHCR 4
	2 PI,X2PI,RO,NW,DW,NCHN,NREC,KPTS,UT,SR,TRUN,NPTS,CTITL(19),	SHCR 5
	2 WVSLOP,TPST,ELL	SHCR 6
	COMMON /BK5/ LCTH(1710),SCTH(1710)	SHCR 7
	DIMENSION H(11),DID(51)	SHCR 8
	EQUIVALENCE (TITLE,DID)	SHCR 9
	REAL LCTH	SHCR 10
	DATA PI/3.1415927/	SHCR 11
	DATA INIT/0/	SHCR 12
	IF (INIT.EQ. 1) GO TO 20	SHCR 13
	INIT = 1	SHCR 14
	PION12 = PI/12	SHCR 15
	DO 10 K=1,6	SHCR 16
	A = (K-1)*PION12	SHCR 17
	CA = COS(A)	SHCR 18
	CON = CA*CA/6	SHCR 19
	SQCON = SQRT(CON)	SHCR 20
	L = K * 5	SHCR 21
	B(L) = SQCON	SHCR 22
	IF (K.EQ. 1) GO TO 10	SHCR 23
	L = 7 - K	SHCR 24
	B(L) = SQCON	SHCR 25
	10 CONTINUE	SHCR 26
C	HEAD ID RECORDS	SHCR 27
	20 DO 30 I=1,11	SHCR 28
	N = I * 19	SHCR 29
	READ (N) DID	SHCR 30
	IF (1.NE. 6) GO TO 30	SHCR 31
C	FLAG TO IDENTIFY SHORTCRESTED ORIGIN TIME HISTORY TAPES	SHCR 32
	NSPEC = - NSPEC	SHCR 33
C	WRITE SHORTCRESTED ID RECORD	SHCR 34
	WRITE (40) DID	SHCR 35
	30 CONTINUE	SHCR 36
C	COMPUTE SHORTCRESTED TIME HISTORIES	SHCR 37
	DO 60 NR=1,NREC	SHCR 38
	IF (KPTS.NR.GT. NPTS) KPTS = MOD(NPTS,KPTS)	SHCR 39
	LPTS = NCHN*KPTS	SHCR 40
C	INITIALIZE SHORTCRESTED TIME HISTORY	SHCR 41
	DO 40 L=1,LPTS	SHCR 42
	40 SCTH(L) = 0.	SHCR 43
C	LOOP OVER LONGCRESTED HEADINGS	SHCR 44
	DO 50 I=1,11	SHCR 45

N = I + 19	SHCR	46
READ (N) LCTH	SHCR	47
DO 50 L=1,LPTS	SHCR	48
50 SCTH(L) = SCTH(L) + B(I)*LCTH(L)	SHCR	49
C WRITE SHORTCRESTED TIME HISTORY RECORD	SHCR	50
WRITE (40) SCTH	SHCR	51
60 CONTINUE	SHCR	52
ENDFILE 40	SHCR	53
REWIND 40	SHCR	54
RETURN	SHCR	55
END	SHCR	56
*DECK THTB		
SUBROUTINE THTABL	THTB	2
COMMON /BK1/ TITLE(8),HEAD,SPEED,NSPEC,SIGWH(3),TMODAL(3),	THTB	3
2 PI,X2PI,RD,NW,DW,NCHN,NREC,KPTS,UT,SR,TRUN,NPTS,CTITL(19),	THTB	4
2 WVSLOP,TPST,ELL	THTB	5
COMMON /BK5/ RMS(57),THMAX(57),THMIN(57),THIST(19,3,30)	THTB	6
DIMENSION DID(51)	THTB	7
EQUIVALENCE (TITLE,DID)	THTB	8
C READ ID RECORD	THTB	9
READ (40) DID	THTB	10
C INITIALIZE ANALYSIS ARRAYS	THTB	11
DO 10 I=1,NCHN	THTB	12
RMS(I) = 0.	THTB	13
THMAX(I) = -1.E25	THTB	14
THMIN(I) = +1.E25	THTB	15
10 CONTINUE	THTB	16
C READ NREC TIME HISTORY RECORDS	THTB	17
DO 100 NR=1,NREC	THTB	18
READ (40) THIST	THTB	19
IF (KPTS*NR.GT. NPTS) KPTS = MOD(NPTS,KPTS)	THTB	20
DO 20 N=1,KPTS	THTB	21
M = 0	THTB	22
DO 20 K=1,3	THTB	23
DO 20 L=1,19	THTB	24
M = M + 1	THTB	25
ARG = THIST(L,K,N)	THTB	26
RMS(M) = RMS(M) + ARG*ARG	THTB	27
IF (ARG.GT. THMAX(M)) THMAX(M) = ARG	THTB	28
IF (ARG.LT. THMIN(M)) THMIN(M) = ARG	THTB	29
20 CONTINUE	THTB	30
100 CONTINUE	THTB	31
DO 110 L=1,NCHN	THTB	32
RMS(L) = SQRT(RMS(L)/NPTS)	THTB	33
110 CONTINUE	THTB	34
WRITE (6,1005) TITLE	THTB	35
1005 FORMAT (*1*19X,8A10///)	THTB	36
IF (NSPEC.GT. 0) WRITE (6,1003)	THTB	37
IF (NSPEC.LT. 0) WRITE (6,1004)	THTB	38
1003 FORMAT (50X,*L O N G C R E S T E D*//)	THTB	39

1004	FORMAT (50X,'S H O R T C R E S T E D'//)	THTB	40
	WRITE (6,1006) HEAD,SPEED,SR,TRUN,SIGWH,TMODAL	THTB	41
1006	FORMAT (30X,'HEADING =F6.0 DEG,1HX,SPEED =F6.2 KNOTS/'	THTB	42
2	30X,SAMPLE RATE =F6.2 SAM/SEC,10X,RUN TIME =F8.2 SEC'///	THTB	43
2	18X,3(8X,SIGNIF. WH =F6.2 FEET,2X)/18X,3(1X,MODAL PER =F5.1,	THTB	44
2	* SEC,2X)///)	THTB	45
	WRITE (6,1009)	THTB	46
1009	FORMAT (10 CHAN TITLE *3(3X(5X,*RMS=7X*MAX*7X*MIN *)))//)	THTB	47
	DO 120 L=1,19	THTB	48
	WRITE (6,1010) L,CTITL(L),RMS(L),THMAX(L),THMIN(L),RMS(L+19),	THTB	49
2	THMAX(L+19),THMIN(L+19),RMS(L+38),THMAX(L+38),THMIN(L+38)	THTB	50
120	CONTINUE	THTB	51
1010	FORMAT (15,3X,A10,3(3X,3F10.5))	THTB	52
	REWIND 40	THTB	53
	RETURN	THTB	54
	END	THTB	55
*DECK THPN			
	SUBROUTINE THPNT	THPN	2
	REAL K1,K2	THPN	3
	COMMON /BK1/ TITLE(8),HEAD,SPEED,NSPEC,SIGWH(3),TMODAL(3),	THPN	4
2	PI,X2PI,RD,NW,OW,NCHN,NREC,KPTS,UT,SR,TRUN,NPTS,CTITL(19),	THPN	5
2	WVSLOP,TPST,ELL	THPN	6
	COMMON /BK2/ NRESP,TITL(8),SIGWHT,PERMUD,NPOINT,IPNT(50),	THPN	7
2	PNTITL(3,50),XAP(50),YCL(50),ZHL(50),DHLWL(50),DAP0,XSTAR(50),	THPN	8
2	YSTAR(50),ZSTAR(50),RSTITL(3,50),IMUTN(50),ITYPE(50),IPOINT(50),	THPN	9
2	XMU(50)	THPN	10
	COMMON /BK5/ RESPTH(50,30),THIST(19,3,30)	THPN	11
	DIMENSION DID(51),RID(913)	THPN	12
	EQUIVALENCE (TITLE,DID),(NRESP,RID)	THPN	13
	DATA GRAV,EPS /32.1725,1.E-6/	THPN	14
	READ (40) DID	THPN	15
C	DETERMINE IF SELECTED MODAL PERIOD IS ON ORIGIN TAPE	THPN	16
	IS = 0	THPN	17
	M1 = IABS(NSPEC)	THPN	18
	DO 2 N=1,M1	THPN	19
	IF (ABS(PERMUD-TMODAL(N)) .LT. EPS) IS = N	THPN	20
2	CONTINUE	THPN	21
	IF (IS .EQ. 0) WRITE (6,2000) PERMUD	THPN	22
	IF (IS .EQ. 0) STOP	THPN	23
2000	FORMAT (///'MODAL PERIOD =F10.5* NOT ON ORIGIN TAPE. *	THPN	24
2	*PROGRAM STOP*)	THPN	25
C	WRITE FIRST ID RECORD ON RESPONS TAPE	THPN	26
	WRITE (50) DID	THPN	27
C	COMPUTE (XSTAR,YSTAR,ZSTAR) COORDINATES	THPN	28
	EL = ELL/2	THPN	29
	DAP0 = ELL - TPST*EL	THPN	30
	IF (NPOINT .EQ. 0) GO TO 6	THPN	31
	DO 4 N=1,NPOINT	THPN	32
	IP = IPNT(N)	THPN	33
	XSTAR(IP) = - (XAP(IP) - DAP0)	THPN	34

	YSTAR(IP) = YCL(IP)	THPN 35
	ZSTAR(IP) = ZBL(IP) - DBLWL(IP)	THPN 36
	CONTINUE	THPN 37
C	WRITE SECOND ID RECORD ON RESPONSE TAPE	THPN 38
D	WRITE (50) RID	THPN 39
	CON1 = SIGWHT/SIGWH(IS)	THPN 40
	DO 100 NR=1,NREC	THPN 41
	READ (40) THIST	THPN 42
	IF (KPTS*NR.GT. NPTS) KPTS = MOD(NPTS,KPTS)	THPN 43
	DO 90 K=1,KPTS	THPN 44
	DO 80 N=1,NRESP	THPN 45
	CON2 = RD*CON1	THPN 46
	IP = IPOINT(N)	THPN 47
	IM = IMUTN(N)	THPN 48
	IT = ITYPE(N)	THPN 49
	J = (IT-1)*6	THPN 50
	L = J + IM + 1	THPN 51
	IF (IT.GT. 3) GO TO 10	THPN 52
C	COMPUTE EARTH SYSTEM RESPONSES	THPN 53
	IF (IP.EQ. 0) RESPTH(N,K) = THIST(L,IS,K)*CON1	THPN 54
	IF (IP.EQ. 0) GO TO 80	THPN 55
	IF (IT.EQ. 3) CON2 = CON2/GRAV	THPN 56
	SURGE = THIST(J+2,IS,K)*CON1	THPN 57
	SWAY = THIST(J+3,IS,K)*CON1	THPN 58
	HEAVE = THIST(J+4,IS,K)*CON1	THPN 59
	ROLL = THIST(J+5,IS,K)*CON2	THPN 60
	PITCH = THIST(J+6,IS,K)*CON2	THPN 61
	YAW = THIST(J+7,IS,K)*CON2	THPN 62
	IF (IM.EQ.1) RESPTH(N,K) = SURGE-YSTAR(IP)*YAW+ZSTAR(IP)*PITCH	THPN 63
	IF (IM.EQ.2) RESPTH(N,K) = SWAY-ZSTAR(IP)*ROLL+XSTAR(IP)*YAW	THPN 64
	IF (IM.EQ.3) RESPTH(N,K) = HEAVE-XSTAR(IP)*PITCH+YSTAR(IP)*ROLL	THPN 65
	GO TO 80	THPN 66
C	COMPUTE SHIP SYSTEM LATERAL AND NORMAL FORCES	THPN 67
10	IF (IP.GT.0) GO TO 20	THPN 68
	SWAACC = THIST(15,IS,K)*CON1	THPN 69
	HEAACC = THIST(16,IS,K)*CON1	THPN 70
	GO TO 30	THPN 71
20	CON2 = CON2/GRAV	THPN 72
	SWAY = THIST(15,IS,K)*CON1	THPN 73
	HEAVE = THIST(16,IS,K)*CON1	THPN 74
	ROLL = THIST(17,IS,K)*CON2	THPN 75
	PITCH = THIST(18,IS,K)*CON2	THPN 76
	YAW = THIST(19,IS,K)*CON2	THPN 77
	SWAACC = SWAY-ZSTAR(IP)*ROLL+XSTAR(IP)*YAW	THPN 78
	HEAACC = HEAVE-XSTAR(IP)*PITCH+YSTAR(IP)*ROLL	THPN 79
C	COMPUTE LATERAL AND NORMAL FORCES, C AND D,	THPN 80
C	USING ONLY A ROLL ROTATION	THPN 81
30	ROLL = THIST(5,IS,K)*CON1	THPN 82
	ARG = ROLL*RD	THPN 83
	COSROL = COS(ARG)	THPN 84

SINROL = SIN(ARG)	THPN	85
C = (HEAACC+1.)*SINROL + SWAACC*COSROL	THPN	86
D = (HEAACC+1.)*COSROL - SWAACC*SINROL	THPN	87
C COMPUTE LATERAL AND NORMAL FORCES, FL AND FN,	THPN	88
C INCLUDING PITCH ROTATION	THPN	89
PITCH = THIST(6,IS,K)*CONI	THPN	90
ARG = PITCH*RD	THPN	91
SINPIT = SIN(ARG)	THPN	92
SINPIT2 = SINPIT*SINPIT	THPN	93
COSROL2 = COSROL*COSROL	THPN	94
SINROL2 = SINROL*SINROL	THPN	95
K1 = SQRT(1. - SINROL2*SINPIT2)	THPN	96
K2 = SQRT(1. - COSROL2*SINPIT2)	THPN	97
FL = C * K1	THPN	98
FN = D * K2	THPN	99
IF (IM.EQ.2 .AND. IT.EQ.4) RESPTH(N,K) = FL	THPN	100
IF (IM.EQ.3 .AND. IT.EQ.4) RESPTH(N,K) = FN	THPN	101
IF (IT.EQ.4) GO TO 80	THPN	102
C COMPUTE SHIP SYSTEM LATERAL AND NORMAL LOADS, SL AND SN	THPN	103
IF (IM.EQ.3) GO TO 40	THPN	104
C COMPUTE LATERAL SHORING LOADS, SL	THPN	105
IF (FN.LE.0.) SL = FL	THPN	106
IF (FN.LE.0.) GO TO 40	THPN	107
TERM1 = ABS(FL)	THPN	108
TERM2 = XMU(N)*FN	THPN	109
IF (TERM1.LE.TERM2) SL = 0.	THPN	110
IF (TERM1.GT.TERM2) SL = SIGN(1.,FL) * (TERM1-TERM2)	THPN	111
RESPTH(N,K) = SL	THPN	112
GO TO 80	THPN	113
C COMPUTE NORMAL SHORING LOAD, SN	THPN	114
40 IF (FN.GE.0.) SN = 0.	THPN	115
IF (FN.LT.0.) SN = -FN	THPN	116
RESPTH(N,K) = SN	THPN	117
80 CONTINUE	THPN	118
90 CONTINUE	THPN	119
WRITE (50) ((RESPTH(N,K),N=1,NRESP),K=1,KPTS)	THPN	120
100 CONTINUE	THPN	121
ENDFILE 50	THPN	122
REWIND 50	THPN	123
RETURN	THPN	124
END	THPN	125
*DECK THAN		
SUBROUTINE THANAL	THAN	2
COMMON /BX1/ TITLE(8),HEAD,SPEED,NSPEC,SIGWH(3),TMDAL(3),	THAN	3
2 PI,X2PI,RD,NW,DW,NCHN,NREC,KPTS,DT,SR,TRUN,NPTS,CTITL(19),	THAN	4
2 WVSLOP,TPST,ELL	THAN	5
COMMON /HX2/ NRESP,TITL(8),SIGWHT,PERMOD,NPOINT,IPNT(50),	THAN	6
2 PNTITL(3,50),XAP(50),YCL(50),ZBL(50),DBLWL(50),DAPD,XSTAR(50),	THAN	7
2 YSTAR(50),ZSTAR(50),RSTITL(3,50),IMOTN(50),ITYPE(50),IPOINT(50),	THAN	8
2 XMU(50)	THAN	9

COMMON /BK3/ NRPRNT,PRSTRT,PREND,IRPRNT(10),TLPRNT(10)	THAN 10
COMMON /BK5/ AVG(50),RMS(50),THMAX(50),THMIN(50),TMP(10),	THAN 11
2 RESPTH(50,30)	THAN 12
DIMENSION DID(51),RID(913)	THAN 13
EQUIVALENCE (TITLE,DID),(NRESP,RID)	THAN 14
C READ FIRST AND SECOND ID RECORDS ON RESPONSE TAPE	THAN 15
READ (50) DID	THAN 16
READ (50) RID	THAN 17
C INITIALIZE ANALYSIS ARRAYS	THAN 18
DO 10 I=1,NRESP	THAN 19
AVG(I) = 0	THAN 20
RMS(I) = 0.	THAN 21
THMAX(I) = -1.E25	THAN 22
THMIN(I) = +1.E25	THAN 23
10 CONTINUE	THAN 24
L = - 1	THAN 25
M = 0	THAN 26
C READ NREC TIME HISTORY RECORDS	THAN 27
DO 100 NR=1,NREC	THAN 28
IF (KPTS.NR .GT. NPTS) KPTS = MOD(NPTS,KPTS)	THAN 29
READ (50) ((RESPTH(N,K),N=1,NRESP),K=1,KPTS)	THAN 30
DO 40 K=1,KPTS	THAN 31
DO 20 N=1,NRESP	THAN 32
ARG = RESPTH(N,K)	THAN 33
AVG(N) = AVG(N) + ARG	THAN 34
RMS(N) = RMS(N) + ARG*ARG	THAN 35
IF (ARG .GT. THMAX(N)) THMAX(N) = ARG	THAN 36
IF (ARG .LT. THMIN(N)) THMIN(N) = ARG	THAN 37
20 CONTINUE	THAN 38
IF (NRPRNT .EQ. 0) GO TO 40	THAN 39
L = L + 1	THAN 40
TIME = L*DT	THAN 41
IF (TIME .LT. PRSTRT .OR. TIME.GT.PREND) GO TO 40	THAN 42
M = M + 1	THAN 43
IF (MOD(M,50) .NE. 1) GO TO 25	THAN 44
WRITE (6,1100) TITL	THAN 45
1100 FORMAT (*1*19X,8A10//)	THAN 46
IF (NSPEC .GT. 0) WRITE (6,1003)	THAN 47
IF (NSPEC .LT. 0) WRITE (6,1004)	THAN 48
WRITE (6,1102) (IRPRNT(I),TLPRNT(I),I=1,NRPRNT)	THAN 49
1102 FORMAT (49X,*RESPONSE TIME HISTORIES*///	THAN 50
2 5X*TIME *10(13*--*A8))	THAN 51
WRITE (6,1104)	THAN 52
1104 FORMAT (1X)	THAN 53
25 DO 30 I=1,NRPRNT	THAN 54
J = IRPRNT(I)	THAN 55
TMP(I) = RESPTH(J,K)	THAN 56
30 CONTINUE	THAN 57
WRITE (6,1110) TIME,(TMP(I),I=1,NRPRNT)	THAN 58
1110 FORMAT (F9.1,10F12.5)	THAN 59

40	CONTINUE	THAN	60
100	CONTINUE	THAN	61
	DO 110 N=1,NRESP	THAN	62
	AVG(N) = AVG(N)/NPTS	THAN	63
	RMS(N) = RMS(N)/NPTS	THAN	64
	RMS(N) = SQRT(ABS(RMS(N)-AVG(N)*AVG(N)))	THAN	65
110	CONTINUE	THAN	66
	IF (NPOINT .EQ. 0) GO TO 130	THAN	67
	WRITE (6,1005) TITL	THAN	68
	WRITE (6,1200) DAP0	THAN	69
1200	FORMAT (//50X*POINT TABLE*//30X*ORIGIN IS *F8.2* FEET FORWARD *	THAN	70
2	*OF AFT PERPENDICULAR*//5X*POINT*11X*TITLE*20X*XAP*7X*YCL*7X*ZWL*	THAN	71
2	6X*DBLWL*9X*XSTAR*5X*YSTAR*5X*ZSTAR*//	THAN	72
	DO 120 N=1,NPOINT	THAN	73
	IP = IPNT(N)	THAN	74
	WRITE (6,1210) IP,(PNTITL(I,IP),I=1,3),XAP(IP),YCL(IP),ZBL(IP),	THAN	75
2	DBLWL(IP),XSTAR(IP),YSTAR(IP),ZSTAR(IP)	THAN	76
1210	FORMAT (5X,I3,2X,3A10,4F10.2,4X,3F10.2)	THAN	77
120	CONTINUE	THAN	78
130	CONTINUE	THAN	79
	WRITE (6,1005) TITL	THAN	80
1005	FORMAT (*1*19X,8A10*//)	THAN	81
	IF (NSPEC .GT. 0) WRITE (6,1003)	THAN	82
	IF (NSPEC .LT. 0) WRITE (6,1004)	THAN	83
1003	FORMAT (50X,*L O N G C R E S T I E D*//)	THAN	84
1004	FORMAT (49X,*S H O R T C R E S T I E D*//)	THAN	85
	WRITE (6,1006) HEAD,SPEED,SP,TRUN,SIGWHT,PERMOD	THAN	86
1006	FORMAT (/30X*HEADING =*F6.0* DEG*18X*SPEED =*F6.2* KNOTS*//	THAN	87
2	30X*SAMPLE RATE =*F6.2* SAM/SEC*10X*RUN TIME =*F8.2* SEC*//	THAN	88
2	45X*SIGNIFICANT WAVE HEIGHT =*F6.2* FEET*/45X,	THAN	89
2	*MODAL WAVE PERIOD =*F5.1* SEC*//)	THAN	90
	WRITE (6,1008)	THAN	91
1008	FORMAT (///47X*RESPONSE TIME HISTORY STATISTICS*//)	THAN	92
	WRITE (6,1009)	THAN	93
1009	FORMAT (* RESP POINT*11X*TITLE*24X*AVG*10X*STDEV*11X*MAX*12X,	THAN	94
2	*MIN*//)	THAN	95
	DO 140 N=1,NRESP	THAN	96
	IP = IPNT(N)	THAN	97
	WRITE (6,1010) N,IP,(RSTITL(I,N),I=1,3),AVG(N),RMS(N),	THAN	98
2	THMAX(N),THMIN(N)	THAN	99
1010	FORMAT (215,3X,3A10,3X,F10.5,3(5X,F10.5))	THAN	100
140	CONTINUE	THAN	101
	RETURN	THAN	102
	END	THAN	103
*DECK	THPL	THPL	2
	SUBROUTINE THPLOT	THPL	3
	COMMON /BK1/ TITLE(8),HEAD,SPEED,NSPEC,SIGWHT(3),TMODAL(3),	THPL	4
2	PI,X2PI,RO,NW,DW,NCHN,NREC,KPTS,DT,SR,TRUN,NPTS,CTITL(19),	THPL	5
2	WVSLUP,TPST,ELL	THPL	5
	COMMON /BK2/ NRESP,TITL(8),SIGWHT,PERMOD,NPOINT,IPNT(50),	THPL	6

2	PNTITL(3,50),XAP(50),YCL(50),ZBL(50),DBLWL(50),DAPO,XSTAR(50),	THPL	7
2	YSTAR(50),ZSTAR(50),RSTITL(3,50),IMOTN(50),ITYPE(50),IPOINT(50),	THPL	8
2	XMU(50)	THPL	9
	COMMON /BK4/ ISTART,NPLOT,TITLE1(4),TITLE2(4),TSTART,TEND,TINC,	THPL	10
2	YTLTOP(3,25),IRTOP(25),YOTOP(25),DYTOP(25),YTLBOT(3,25),	THPL	11
2	IRBOT(25),YOROT(25),DYBOT(25)	THPL	12
	COMMON /BK5/ AVG(50),RMS(50),THMAX(50),THMIN(50),TMP(10),	THPL	13
2	RESPTH(50,30),BUFF(1000),TIME(3602),CHANT(3602),CHANB(3602)	THPL	14
	DIMENSION ATITL(8),BTITL(8),SEATYP(2,2)	THPL	15
	DIMENSION DID(51),RID(913)	THPL	16
	EQUIVALENCE (TITLE,DID),(NRESP,RID)	THPL	17
	DATA SEATYP /10HMLONGCRESTE,2HD,10HSHORTCREST,2HED/	THPL	18
	DATA EPS /0.1/	THPL	19
	REWIND 7	THPL	20
	CALL PLOTS (BUFF,1000,7)	THPL	21
	DXG = 2	THPL	22
	XG = DXG	THPL	23
	YG = 1	THPL	24
	MPTS = (TEND-TSTART)*SR	THPL	25
	TL = (MPTS-1)*DT	THPL	26
	M = MPTS + 2	THPL	27
	X0 = TSTART	THPL	28
	DX = TINC	THPL	29
	IXL = TL/DX	THPL	30
	XL = IXL	THPL	31
	IF (XL*DX .LT. TL) XL = XL + 1.	THPL	32
	WRITE (6,1005) TITL	THPL	33
1005	FORMAT (*1*19X,BAL0///)	THPL	34
	WRITE (6,1107) TSTART,TEND,TINC	THPL	35
1107	FORMAT (30X*TIME PLOTTED =*F8,2* TO *F8,2* SECONDS*/	THPL	36
2	30X*TIME INCREMENT =*F8,2* SECONDS/INCH*///)	THPL	37
	WRITE (6,1010)	THPL	38
1010	FORMAT (* PLOT RESP POINT*11X*TITLE*13X*YMIN*6X*YMAX*7X*DY*)	THPL	39
	DO 40 NP=1,NPLOT	THPL	40
	YL = 4	THPL	41
	ICT = IRTOP(NP)	THPL	42
	ICB = IRBOT(NP)	THPL	43
	YTMIN = YOTOP(NP)	THPL	44
	DYT = DYTOP(NP)	THPL	45
	YTMAX = YTMIN + YL*DYT	THPL	46
	YBMIN = YOROT(NP)	THPL	47
	DYB = DYBOT(NP)	THPL	48
	YBMAX = YBMIN + YL*DYB	THPL	49
	REWIND 50	THPL	50
	READ (50) DID	THPL	51
	READ (50) RID	THPL	52
	IHEAD = HEAD + EPS	THPL	53
	ISPEED = SPEED + EPS	THPL	54
	L = - 1	THPL	55
	K = 0	THPL	56

DO 20 NR=1,NREC	THPL 57
IF (KPTS*NR .GT. NPTS) KPTS = MOD(NPTS,KPTS)	THPL 58
READ (50) ((RESPTH(N,J),N=1,NRESP),J=1,KPTS)	THPL 59
DO 10 J=1,KPTS	THPL 60
L = L + 1	THPL 61
T = L*DT	THPL 62
IF (T .LT. TSTART) GO TO 10	THPL 63
K = K + 1	THPL 64
TIME(K) = T	THPL 65
CHANT(K) = RESPTH(ICT,J)	THPL 66
CHANB(K) = RESPTH(ICB,J)	THPL 67
C TIME HISTORIES CLIPPED ON PLOTS IF THEY EXCEED SCALES	THPL 68
IF (CHANT(K) .GT. YTMAX) CHANT(K) = YTMAX	THPL 69
IF (CHANT(K) .LT. YTMIN) CHANT(K) = YTMIN	THPL 70
IF (CHANB(K) .GT. YBMAX) CHANB(K) = YBMAX	THPL 71
IF (CHANB(K) .LT. YBMIN) CHANB(K) = YBMIN	THPL 72
IF (K .EQ. NPTS) GO TO 30	THPL 73
10 CONTINUE	THPL 74
20 CONTINUE	THPL 75
30 CALL SIPL (XG,YG,XL,YL,YTLBOT(1,NP),X0,DX,Y0BOT(NP),DYBOT(NP),	THPL 76
2 M,TIME,CHANB)	THPL 77
ENCODE (78,1300,ATITL) IPOINT(ICB),AVG(ICB),THMAX(ICB),	THPL 78
2 SIGWHT,IHEAD	THPL 79
1300 FORMAT (10POINT*13.8X*AVG =*F7.3* MAX =*F7.3.4X,	THPL 80
2 *SIGWH =*F6.2* FEET*16* DEG *)	THPL 81
XP = 0.3	THPL 82
YP = YL - 0.25	THPL 83
CALL SYMBOL (XP,YP,0.15,ATITL,0.,78)	THPL 84
IF (NSPEC .GT. 0) ISEA = 1	THPL 85
IF (NSPEC .LT. 0) ISEA = 2	THPL 86
ENCODE (78,1310,BTITL) (SEATYP(I,ISEA),I=1,2),RMS(ICB),	THPL 87
2 THMIN(ICB),PERMOD,ISPEED	THPL 88
1310 FORMAT (A10,A2,* STD =*F7.3* MIN =*F7.3.4X,	THPL 89
2 *MODAL =*F6.2* SEC *16* KNOTS*)	THPL 90
YP = YL - 0.5	THPL 91
CALL SYMBOL (XP,YP,0.15,BTITL,0.,78)	THPL 92
XG = 0	THPL 93
YG = 5	THPL 94
CALL SIPL (XG,YG,XL,YL,YTLTOP(1,NP),X0,DX,Y0TOP(NP),DYTOP(NP),	THPL 95
2 M,TIME,CHANT)	THPL 96
ENCODE (78,1300,ATITL) IPOINT(ICT),AVG(ICT),THMAX(ICT),	THPL 97
2 SIGWHT,IHEAD	THPL 98
XP = 0.3	THPL 99
YP = YL - 0.25	THPL 100
CALL SYMBOL (XP,YP,0.15,ATITL,0.,78)	THPL 101
YP = YL - 0.5	THPL 102
ENCODE (78,1310,BTITL) (SEATYP(I,ISEA),I=1,2),RMS(ICT),	THPL 103
2 THMIN(ICT),PERMOD,ISPEED	THPL 104
CALL SYMBOL (XP,YP,0.15,BTITL,0.,78)	THPL 105
XP = (XL-8.)/2	THPL 106

YP = 4.51	THPL 107
CALL SYMBOL (XP,YP,0.21,TITLE1,0.,40)	THPL 108
YP = 4.2	THPL 109
CALL SYMBOL (XP,YP,0.21,TITLE2,0.,40)	THPL 110
XG = XL + DXG	THPL 111
YG = - 5	THPL 112
WRITE (6,1104)	THPL 113
1104 FORMAT (1X)	THPL 114
WRITE (6,1020) NP,ICT,IPUNT(ICT),(YTLTOP(I,NP),I=1,3),	THPL 115
2 YTMIN,YTMAX,DYT	THPL 116
1020 FORMAT (3I5,3X,2A10,A2,3F10.2)	THPL 117
WRITE (6,1020) NP,ICB,IPUNT(ICB),(YTLBOT(I,NP),I=1,3),	THPL 118
2 YBMIN,YBMAX,DYB	THPL 119
40 CONTINUE	THPL 120
CALL PLOT (XG,YG,999)	THPL 121
WRITE (6,2000)	THPL 122
2000 FORMAT (//° PLOTS COMPLETED.*)	THPL 123
REWIND 7	THPL 124
RETURN	THPL 125
END	THPL 126
•DECK SIPL	
SUBROUTINE SIPL (XG,YG,XL,YL,YTITLE,X0,DX,Y0,DY,M,X,Y)	SIPL 2
DIMENSION YTITLE(3),X(M),Y(M)	SIPL 3
DIMENSION ULINE(5),VLINE(5),XLINE(4),YLINE(4)	SIPL 4
N = M - 2	SIPL 5
CALL PLOT (XG,YG,-3)	SIPL 6
CALL AXIS (0.,0.,15*TIME IN SECONDS,-15,XL,0.,X0,DX)	SIPL 7
CALL AXIS (0.,0.,YTITLE,22,YL,90.,Y0,DY)	SIPL 8
ULINE(1)=ULINE(4)=X0	SIPL 9
ULINE(2)=ULINE(3)=X0+DX*XL	SIPL 10
ULINE(5)=DX	SIPL 11
VLINE(1)=VLINE(2)=Y0+DY*YL	SIPL 12
VLINE(3)=VLINE(4)=Y0	SIPL 13
VLINE(5)=DY	SIPL 14
CALL LINE (ULINE,VLINE,3,1,0,0)	SIPL 15
XLINE(1)=XLINE(3)=X0	SIPL 16
XLINE(2)=X0+DX*XL	SIPL 17
XLINE(4)=DX	SIPL 18
YLINE(1)=YLINE(2)=Y0+DY*YL/2	SIPL 19
YLINE(3)=Y0	SIPL 20
YLINE(4)=DY	SIPL 21
CALL LINE (XLINE,YLINE,2,1,0,0)	SIPL 22
X(N+1) = X0	SIPL 23
X(N+2) = DX	SIPL 24
Y(N+1) = Y0	SIPL 25
Y(N+2) = DY	SIPL 26
CALL LINE (X,Y,N+1,0,0)	SIPL 27
RETURN	SIPL 28
END	SIPL 29

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FFG 7

RMS TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

FIG 7

UNCORRECTED
RMS HULL IN DEGREES/ANGULAR PERIOD T IN SECONDS
OF

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	0.00/4.7	0.23/9.0	0.37/9.0	0.51/9.0	0.64/9.0	0.70/9.0	0.77/9.0	0.84/9.0	0.86/9.0	0.84/9.0	0.77/9.0	0.64/9.0	0.51/9.0	
9	7	0.00/4.7	0.20/9.0	0.33/9.0	0.46/9.0	0.55/9.0	0.54/9.0	0.46/9.0	0.33/9.0	0.20/9.0	0.07/9.0	0.04/9.0	0.03/9.0	0.02/9.0	
11	7	0.00/4.7	0.16/9.0	0.33/9.0	0.46/9.0	0.55/9.0	0.54/9.0	0.46/9.0	0.33/9.0	0.20/9.0	0.07/9.0	0.04/9.0	0.03/9.0	0.02/9.0	
13	7	0.00/4.7	0.13/9.0	0.26/9.0	0.39/9.0	0.48/9.0	0.43/9.0	0.39/9.0	0.26/9.0	0.13/9.0	0.06/9.0	0.04/9.0	0.02/9.0	0.01/9.0	
15	7	0.00/4.7	0.10/9.0	0.21/9.0	0.34/9.0	0.43/9.0	0.38/9.0	0.34/9.0	0.21/9.0	0.10/9.0	0.05/9.0	0.03/9.0	0.01/9.0	0.01/9.0	
17	7	0.00/4.7	0.08/9.0	0.17/9.0	0.28/9.0	0.37/9.0	0.32/9.0	0.28/9.0	0.17/9.0	0.08/9.0	0.04/9.0	0.02/9.0	0.01/9.0	0.01/9.0	
19	7	0.00/4.7	0.06/9.0	0.14/9.0	0.23/9.0	0.32/9.0	0.27/9.0	0.23/9.0	0.14/9.0	0.06/9.0	0.03/9.0	0.01/9.0	0.01/9.0	0.01/9.0	
21	7	0.00/4.7	0.05/9.0	0.11/9.0	0.19/9.0	0.28/9.0	0.23/9.0	0.19/9.0	0.11/9.0	0.05/9.0	0.02/9.0	0.01/9.0	0.01/9.0	0.01/9.0	
10	7	0.00/13.4	0.04/12.8	0.12/12.1	0.21/11.4	0.25/10.7	0.20/10.0	0.12/9.4	0.04/8.7	0.02/8.0	0.01/7.3	0.01/6.6	0.01/6.0	0.01/5.3	
9	7	0.00/14.0	0.05/12.8	0.14/12.1	0.23/11.4	0.27/10.7	0.22/10.0	0.14/9.4	0.05/8.7	0.03/8.0	0.01/7.3	0.01/6.6	0.01/6.0	0.01/5.3	
11	7	0.00/14.3	0.05/12.8	0.14/12.1	0.23/11.4	0.27/10.7	0.22/10.0	0.14/9.4	0.05/8.7	0.03/8.0	0.01/7.3	0.01/6.6	0.01/6.0	0.01/5.3	
13	7	0.00/14.6	0.05/12.8	0.14/12.1	0.23/11.4	0.27/10.7	0.22/10.0	0.14/9.4	0.05/8.7	0.03/8.0	0.01/7.3	0.01/6.6	0.01/6.0	0.01/5.3	
15	7	0.00/14.6	0.05/12.8	0.14/12.1	0.23/11.4	0.27/10.7	0.22/10.0	0.14/9.4	0.05/8.7	0.03/8.0	0.01/7.3	0.01/6.6	0.01/6.0	0.01/5.3	
17	7	0.00/15.0	0.03/14.6	0.09/13.9	0.16/9.4	0.23/9.4	0.27/9.4	0.23/9.4	0.16/9.4	0.09/13.9	0.03/14.6	0.01/15.0	0.00/15.0	0.00/15.0	
19	7	0.00/15.0	0.03/14.6	0.07/21.3	0.14/9.4	0.23/9.4	0.27/9.4	0.23/9.4	0.14/9.4	0.07/21.3	0.03/14.6	0.01/15.0	0.00/15.0	0.00/15.0	
21	7	0.00/15.0	0.02/19.1	0.05/13.9	0.11/9.4	0.21/9.4	0.24/9.4	0.19/9.4	0.11/9.4	0.05/13.9	0.02/19.1	0.01/15.0	0.00/15.0	0.00/15.0	
15	7	0.00/20.3	0.04/19.6	0.06/17.5	0.13/14.3	0.11/10.1	0.06/8.7	0.03/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
9	7	0.00/20.3	0.04/19.6	0.05/17.5	0.14/14.3	0.13/10.1	0.08/8.7	0.04/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
11	7	0.00/20.3	0.04/19.6	0.07/17.5	0.15/14.3	0.12/10.1	0.07/8.7	0.04/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
13	7	0.00/20.3	0.04/19.6	0.08/17.5	0.15/14.3	0.12/10.1	0.07/8.7	0.04/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
15	7	0.00/20.3	0.03/19.6	0.07/17.5	0.13/14.3	0.11/10.1	0.06/8.7	0.03/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
17	7	0.00/20.3	0.03/19.6	0.06/17.5	0.11/14.3	0.09/10.1	0.05/8.7	0.03/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
19	7	0.00/20.3	0.02/19.1	0.05/17.5	0.09/14.3	0.08/10.1	0.04/8.7	0.02/7.3	0.01/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
21	7	0.00/20.3	0.02/19.1	0.04/17.5	0.08/14.3	0.07/10.1	0.03/8.7	0.02/7.3	0.01/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
20	7	0.00/31.0	0.02/33.1	0.06/26.2	0.12/19.0	0.08/13.4	0.05/9.4	0.03/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
9	7	0.00/29.9	0.36/27.3	0.09/23.3	0.19/19.0	0.13/13.4	0.08/9.4	0.04/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
11	7	0.00/27.3	0.37/26.2	0.08/23.3	0.18/19.0	0.12/13.4	0.07/9.4	0.03/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
13	7	0.00/27.3	0.33/26.2	0.07/23.3	0.16/19.0	0.11/13.4	0.06/9.4	0.03/7.3	0.02/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
15	7	0.00/27.3	0.29/26.2	0.06/23.3	0.14/19.0	0.10/13.4	0.05/9.4	0.02/7.3	0.01/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
17	7	0.00/27.3	0.25/26.2	0.05/23.3	0.12/19.0	0.09/13.4	0.04/9.4	0.02/7.3	0.01/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
19	7	0.00/27.3	0.22/26.2	0.04/23.3	0.10/19.0	0.08/13.4	0.03/9.4	0.02/7.3	0.01/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	
21	7	0.00/27.3	0.22/26.2	0.04/23.3	0.07/19.0	0.07/13.4	0.02/9.4	0.01/6.6	0.01/5.9	0.01/5.2	0.01/4.5	0.01/3.8	0.01/3.1	0.01/3.1	
25	7	0.00/7.7	0.39/7.3	0.72/57.1	0.11/29.9	0.25/17.0	0.30/9.4	0.25/8.5	0.13/8.1	0.06/7.5	0.05/7.3	0.02/7.5	0.01/7.5	0.01/7.5	
9	7	0.00/7.7	0.42/57.1	0.08/39.3	0.14/29.9	0.26/16.5	0.31/9.4	0.26/8.5	0.14/8.1	0.07/7.5	0.06/7.3	0.03/7.5	0.02/7.5	0.01/7.5	
11	7	0.00/7.7	0.42/39.3	0.08/29.9	0.13/29.9	0.26/16.5	0.31/9.4	0.26/8.5	0.14/8.1	0.07/7.5	0.06/7.3	0.03/7.5	0.02/7.5	0.01/7.5	
13	7	0.00/34.9	0.38/33.1	0.07/29.9	0.12/29.9	0.26/16.5	0.31/9.4	0.26/8.5	0.14/8.1	0.07/7.5	0.06/7.3	0.03/7.5	0.02/7.5	0.01/7.5	
15	7	0.00/34.9	0.34/33.1	0.06/29.9	0.10/29.9	0.26/16.5	0.31/9.4	0.26/8.5	0.14/8.1	0.07/7.5	0.06/7.3	0.03/7.5	0.02/7.5	0.01/7.5	
17	7	0.00/34.9	0.30/33.1	0.05/29.9	0.09/29.9	0.26/16.5	0.31/9.4	0.26/8.5	0.14/8.1	0.07/7.5	0.06/7.3	0.03/7.5	0.02/7.5	0.01/7.5	
19	7	0.00/34.9	0.26/33.1	0.05/29.9	0.07/29.9	0.26/16.5	0.31/9.4	0.26/8.5	0.14/8.1	0.07/7.5	0.06/7.3	0.03/7.5	0.02/7.5	0.01/7.5	
21	7	0.00/34.9	0.23/33.1	0.04/29.9	0.07/29.9	0.26/16.5	0.31/9.4	0.26/8.5	0.14/8.1	0.07/7.5	0.06/7.3	0.03/7.5	0.02/7.5	0.01/7.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS WADAL WAVE PERIOD IN SECONDS.

UNCLASSIFIED														
RMS ROLL IN DEGREES/SECOND MODAL PERIOD, T, IN SECONDS														
FIG. 7														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	0.00/8.7	0.21/9.0	0.77/9.2	0.71/9.0	0.82/9.1	0.50/8.7	0.37/9.0	0.34/8.7	0.31/8.5	0.21/8.5	0.13/8.7	0.06/8.7	0.00/8.7
11	9	0.00/8.7	0.20/9.0	0.77/9.2	0.54/9.2	0.79/9.0	0.72/9.0	0.57/9.0	0.56/9.0	0.53/9.0	0.41/9.0	0.37/8.7	0.19/9.0	0.00/8.7
13	11	0.00/8.7	0.16/9.0	0.33/9.2	0.54/9.2	0.64/9.2	0.64/9.2	0.51/9.0	0.46/9.0	0.49/9.0	0.47/9.0	0.37/9.0	0.29/9.0	0.00/8.7
15	13	0.00/8.7	0.13/9.0	0.26/9.2	0.44/9.2	0.52/9.2	0.46/9.0	0.45/9.0	0.40/9.0	0.40/9.0	0.36/9.0	0.34/9.0	0.29/9.0	0.00/8.7
17	15	0.00/8.7	0.08/9.0	0.13/9.2	0.32/9.2	0.43/9.2	0.40/9.0	0.32/9.0	0.30/9.0	0.36/9.0	0.34/9.0	0.29/9.0	0.17/9.0	0.00/8.7
19	17	0.00/8.7	0.05/9.0	0.12/9.2	0.24/9.2	0.35/9.2	0.36/9.0	0.31/9.0	0.31/9.0	0.36/9.0	0.34/9.0	0.29/9.0	0.14/9.0	0.00/8.7
21	19	0.00/8.7	0.04/9.0	0.11/9.2	0.19/9.2	0.24/9.2	0.23/9.0	0.25/9.0	0.24/9.0	0.29/9.0	0.23/9.0	0.20/9.0	0.12/9.0	0.00/8.7
10	7	0.00/13.4	0.44/12.8	0.22/12.1	0.41/9.5	0.55/9.0	0.63/8.7	0.33/8.7	0.26/8.7	0.19/8.1	0.12/8.5	0.07/7.9	0.02/7.9	0.00/8.7
11	9	0.00/14.0	0.54/12.8	0.14/12.6	0.31/9.5	0.45/9.2	0.70/9.0	0.48/9.0	0.31/9.2	0.36/9.5	0.28/9.5	0.19/10.1	0.11/10.1	0.00/8.7
13	11	0.00/14.6	0.53/14.3	0.13/12.8	0.30/9.5	0.46/9.2	0.59/9.2	0.47/9.0	0.45/9.2	0.41/9.5	0.31/9.5	0.27/10.1	0.17/10.1	0.00/8.7
15	13	0.00/15.0	0.46/14.3	0.10/13.4	0.27/9.5	0.40/9.2	0.45/9.2	0.40/9.0	0.40/9.5	0.31/9.8	0.34/10.1	0.27/10.1	0.14/10.1	0.00/8.7
17	15	0.00/15.0	0.39/14.6	0.05/13.4	0.16/9.5	0.30/9.2	0.32/9.2	0.33/9.2	0.34/9.5	0.27/9.8	0.30/10.1	0.24/10.1	0.16/10.1	0.00/8.7
19	17	0.00/15.0	0.33/14.6	0.02/13.4	0.14/9.5	0.24/9.2	0.26/9.2	0.27/9.2	0.28/9.5	0.23/9.8	0.26/10.1	0.21/10.1	0.13/10.1	0.00/8.7
21	19	0.00/15.0	0.29/14.6	0.01/13.4	0.11/9.5	0.20/9.2	0.21/9.2	0.19/9.2	0.20/9.5	0.18/9.8	0.20/10.1	0.17/10.1	0.09/10.1	0.00/8.7
15	7	0.00/20.3	0.28/19.6	0.08/17.5	0.16/14.3	0.21/10.1	0.43/9.0	0.27/9.0	0.19/8.3	0.13/7.7	0.08/7.7	0.04/7.7	0.02/7.7	0.00/8.7
11	9	0.00/20.3	0.40/19.6	0.05/17.5	0.14/14.3	0.13/10.1	0.53/9.0	0.38/9.0	0.30/9.5	0.23/9.5	0.18/10.1	0.12/10.1	0.06/10.1	0.00/8.7
13	11	0.00/20.3	0.43/19.6	0.07/17.5	0.18/14.3	0.12/10.1	0.52/9.2	0.34/9.2	0.32/9.8	0.24/10.5	0.24/10.5	0.18/10.5	0.10/11.2	0.00/8.7
15	13	0.00/20.3	0.36/19.6	0.08/17.5	0.15/14.3	0.26/10.5	0.46/9.2	0.33/9.2	0.30/10.1	0.23/10.5	0.25/10.5	0.18/11.2	0.12/11.2	0.00/8.7
17	15	0.00/20.3	0.31/19.6	0.06/17.5	0.13/14.3	0.21/10.5	0.32/9.2	0.27/9.2	0.26/10.1	0.22/10.8	0.23/10.5	0.16/11.2	0.10/11.2	0.00/8.7
19	17	0.00/20.3	0.27/19.6	0.05/17.5	0.09/14.3	0.14/10.5	0.26/9.2	0.23/9.5	0.22/10.1	0.18/10.8	0.20/10.5	0.16/11.2	0.09/11.2	0.00/8.7
21	19	0.00/20.3	0.24/19.6	0.04/17.5	0.08/14.3	0.14/10.5	0.21/9.2	0.19/9.5	0.19/10.1	0.16/10.8	0.15/11.2	0.12/11.2	0.07/11.2	0.00/8.7
20	7	0.00/37.0	0.24/33.1	0.06/26.2	0.12/17.0	0.21/13.4	0.70/9.0	0.25/9.5	0.16/8.5	0.10/7.7	0.06/7.5	0.03/7.5	0.01/7.5	0.00/8.7
9	9	0.00/29.9	0.35/27.3	0.09/23.3	0.13/17.0	0.32/13.4	0.61/9.2	0.37/9.0	0.28/9.8	0.19/9.8	0.13/10.1	0.08/10.1	0.05/11.2	0.00/8.7
11	11	0.00/27.3	0.39/26.2	0.07/23.3	0.14/17.0	0.27/13.4	0.47/9.2	0.36/9.2	0.30/10.1	0.24/10.5	0.19/11.2	0.14/11.2	0.09/11.2	0.00/8.7
13	13	0.00/27.3	0.37/26.2	0.09/23.3	0.13/17.0	0.28/13.4	0.42/9.2	0.31/9.2	0.28/10.1	0.25/10.8	0.20/11.6	0.17/11.2	0.10/11.2	0.00/8.7
15	15	0.00/27.3	0.33/26.2	0.06/23.3	0.12/17.0	0.18/13.4	0.38/9.2	0.26/9.5	0.25/10.1	0.23/10.8	0.19/11.6	0.17/11.2	0.12/12.6	0.00/8.7
17	17	0.00/27.3	0.29/26.2	0.05/23.3	0.09/17.0	0.15/13.4	0.34/9.2	0.22/9.5	0.16/10.8	0.20/11.6	0.17/11.6	0.15/11.2	0.10/12.6	0.00/8.7
19	19	0.00/27.3	0.25/26.2	0.05/23.3	0.08/17.0	0.13/13.4	0.23/9.2	0.18/9.5	0.14/10.8	0.19/11.6	0.15/11.6	0.13/11.6	0.09/12.6	0.00/8.7
21	21	0.00/27.3	0.22/26.2	0.04/23.3	0.07/17.0	0.10/13.4	0.19/9.2	0.15/9.5	0.15/10.8	0.14/11.6	0.13/11.6	0.11/11.6	0.07/12.6	0.00/8.7
25	7	0.00/7.7	0.09/7.3	0.02/57.1	0.16/24.9	0.23/17.0	0.30/9.0	0.25/9.5	0.135/8.1	0.08/7.5	0.05/7.3	0.02/7.5	0.01/7.5	0.00/8.7
9	9	0.00/7.7	0.42/57.1	0.05/39.3	0.12/24.2	0.26/16.5	0.49/9.2	0.35/9.0	0.21/9.8	0.15/9.8	0.10/9.5	0.08/10.1	0.03/10.1	0.00/8.7
11	11	0.00/7.7	0.42/39.3	0.05/29.9	0.17/24.2	0.23/16.5	0.71/9.2	0.35/9.2	0.21/10.1	0.20/10.8	0.15/11.6	0.12/11.2	0.07/12.6	0.00/8.7
13	13	0.00/34.9	0.34/33.1	0.08/29.9	0.12/24.2	0.19/16.5	0.59/9.2	0.30/9.5	0.25/10.8	0.21/11.6	0.15/11.6	0.14/12.6	0.09/12.6	0.00/8.7
15	15	0.00/34.9	0.30/33.1	0.06/29.9	0.10/24.2	0.16/16.5	0.44/9.2	0.29/9.5	0.24/10.8	0.24/11.6	0.16/12.6	0.14/12.6	0.10/12.6	0.00/8.7
17	17	0.00/34.9	0.30/33.1	0.05/29.9	0.07/24.2	0.13/16.5	0.76/9.2	0.21/9.5	0.19/11.2	0.18/11.6	0.15/12.6	0.13/12.6	0.09/12.6	0.00/8.7
19	19	0.00/34.9	0.26/33.1	0.05/29.9	0.07/24.2	0.11/16.5	0.26/9.2	0.17/9.5	0.14/11.2	0.14/12.6	0.12/12.6	0.10/12.6	0.07/12.6	0.00/8.7
21	21	0.00/34.9	0.23/33.1	0.04/29.9	0.07/24.2	0.07/16.5	0.19/9.2	0.15/9.5	0.14/11.2	0.13/12.6	0.12/12.6	0.10/12.6	0.07/12.6	0.00/8.7

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

UNDISTURBED
LONGITUDINAL MODAL PERIOD, T, IN SECONDS
AND PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

V	T	SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	0.35/10.5	0.17/10.5	0.33/10.1	0.50/9.2	0.74/8.1	0.96/6.5	0.11/4.5	0.96/5.7	0.96/6.3	0.74/6.8	0.58/7.1	0.50/7.1	0.47/7.0
	9	0.64/11.6	0.66/11.2	0.71/10.8	0.77/10.1	0.82/9.0	0.87/7.5	0.90/6.4	0.93/5.5	1.02/7.1	0.94/7.7	0.90/7.9	0.84/8.1	0.82/8.1
	11	0.74/12.4	0.80/12.1	0.81/12.1	0.81/11.7	0.77/10.1	0.60/8.3	0.00/4.4	0.67/7.3	0.94/8.1	0.84/8.5	0.84/8.7	0.84/8.7	0.84/8.7
	13	0.81/13.4	0.81/13.4	0.80/13.1	0.77/12.1	0.64/11.6	0.44/9.2	0.00/4.4	0.56/8.3	0.74/9.0	0.84/9.5	0.94/10.1	0.95/10.1	0.95/10.1
	15	0.78/14.3	0.77/14.3	0.75/14.0	0.64/12.5	0.54/12.1	0.41/10.6	0.33/9.8	0.55/9.8	0.67/10.5	0.74/10.5	0.85/11.2	0.88/11.2	0.89/11.2
	17	0.72/15.7	0.71/15.7	0.68/14.3	0.52/14.0	0.51/13.4	0.44/12.1	0.33/10.4	0.57/10.4	0.58/11.6	0.70/11.6	0.76/11.6	0.80/12.6	0.81/12.6
	21	0.59/17.5	0.58/17.5	0.55/17.0	0.44/15.3	0.34/15.0	0.25/14.3	0.02/4.8	0.27/13.4	0.43/13.1	0.54/14.6	0.60/14.3	0.65/14.3	0.65/14.3
10	7	0.31/14.0	0.33/13.4	0.39/12.6	0.51/11.2	0.67/9.2	0.90/7.0	0.12/4.5	0.92/5.7	0.98/6.3	0.74/6.8	0.61/7.0	0.52/7.0	0.49/7.0
	9	0.59/14.3	0.61/14.0	0.65/13.4	0.72/12.1	0.76/10.5	0.64/7.9	0.04/4.5	0.81/6.3	1.05/7.1	1.03/7.7	0.95/7.9	0.90/8.1	0.88/8.1
	11	0.74/15.0	0.74/15.0	0.76/14.6	0.76/14.0	0.72/12.1	0.57/10.7	0.06/4.5	0.66/7.5	0.94/8.1	1.02/8.5	1.03/8.7	1.02/9.0	1.01/9.0
	13	0.76/15.0	0.76/15.0	0.76/14.6	0.73/13.4	0.66/12.1	0.54/10.7	0.04/4.5	0.64/8.3	0.91/9.0	0.94/9.2	0.94/10.1	1.00/9.8	1.00/9.8
	15	0.73/17.0	0.73/16.1	0.71/15.3	0.56/14.3	0.56/13.4	0.43/11.6	0.03/4.5	0.44/9.8	0.64/9.8	0.82/10.5	0.84/11.2	0.82/11.2	0.83/11.2
	17	0.68/17.0	0.67/17.0	0.66/16.1	0.54/15.3	0.49/14.0	0.33/12.6	0.02/4.5	0.37/10.8	0.59/11.6	0.72/11.6	0.74/12.6	0.83/12.6	0.84/12.6
	21	0.56/18.5	0.55/18.5	0.52/17.5	0.42/15.7	0.34/14.6	0.26/13.4	0.02/4.5	0.31/11.2	0.51/12.1	0.63/12.8	0.70/12.6	0.75/12.6	0.75/12.6
15	7	0.24/20.3	0.24/19.6	0.35/17.5	0.46/14.3	0.62/10.8	0.75/7.7	0.11/4.5	0.89/5.7	0.96/6.3	0.74/6.8	0.62/7.1	0.53/7.1	0.50/7.1
	9	0.54/20.3	0.56/19.6	0.60/17.5	0.67/14.3	0.72/11.6	0.62/8.5	0.06/4.5	0.90/6.3	1.05/7.1	1.06/7.5	0.99/7.9	0.94/7.9	0.92/7.9
	11	0.68/20.3	0.69/19.6	0.71/17.5	0.72/14.3	0.69/12.1	0.54/9.2	0.05/4.5	0.96/7.5	0.95/8.1	1.05/8.5	1.07/8.7	1.07/9.0	1.06/9.0
	13	0.71/20.3	0.71/19.6	0.71/17.5	0.69/15.0	0.62/13.1	0.54/11.2	0.04/4.5	0.93/8.3	0.82/9.0	0.96/9.2	1.02/10.1	1.04/9.8	1.04/9.8
	15	0.69/20.3	0.68/19.6	0.67/17.5	0.63/15.7	0.54/13.7	0.47/12.1	0.03/4.5	0.94/9.4	0.70/9.8	0.84/10.5	0.92/10.5	0.95/11.2	0.97/10.8
	17	0.64/20.3	0.63/19.6	0.61/17.5	0.56/15.0	0.47/14.6	0.31/12.6	0.03/4.5	0.96/10.4	0.59/11.6	0.73/11.6	0.81/11.6	0.84/12.6	0.87/12.6
	21	0.53/20.3	0.54/19.6	0.55/17.5	0.50/17.0	0.41/15.7	0.26/14.0	0.02/4.5	0.31/11.2	0.51/12.1	0.64/12.8	0.72/12.6	0.76/12.6	0.74/12.6
20	7	0.21/34.9	0.28/31.4	0.33/25.1	0.42/19.0	0.59/13.4	0.70/8.3	0.11/4.5	0.95/5.7	0.92/6.5	0.75/6.8	0.60/7.1	0.51/7.3	0.48/7.3
	9	0.52/21.3	0.53/20.6	0.56/23.3	0.62/19.0	0.64/13.4	0.62/9.0	0.07/4.5	0.78/6.3	1.04/7.1	1.05/7.5	1.00/7.9	0.95/7.9	0.93/7.9
	11	0.65/21.3	0.67/20.6	0.68/23.3	0.67/19.0	0.66/13.4	0.62/10.5	0.05/4.5	0.95/7.5	0.95/8.1	1.06/8.5	1.09/8.7	1.09/8.7	1.08/8.7
	13	0.69/21.3	0.67/20.6	0.66/23.3	0.64/19.0	0.60/13.4	0.50/11.6	0.04/4.5	0.93/8.3	0.82/9.0	0.97/9.2	1.03/10.1	1.05/9.8	1.07/9.8
	15	0.65/21.3	0.65/20.6	0.62/23.3	0.59/19.0	0.52/13.4	0.43/12.6	0.04/4.5	0.94/9.4	0.70/9.8	0.85/10.5	0.93/10.1	0.97/10.8	0.99/10.8
	17	0.61/21.3	0.60/20.6	0.57/23.3	0.53/19.0	0.45/13.4	0.31/13.4	0.03/4.5	0.96/10.4	0.59/11.6	0.74/11.6	0.83/11.6	0.87/12.1	0.89/12.1
	21	0.51/21.3	0.50/20.6	0.47/23.3	0.47/19.0	0.39/13.4	0.26/14.6	0.03/4.5	0.93/15.7	0.51/12.1	0.64/12.8	0.73/12.6	0.77/12.6	0.74/12.6
25	7	0.29/44.0	0.32/39.4	0.33/32.4	0.40/24.2	0.53/16.5	0.64/8.7	0.10/4.5	0.92/5.7	0.87/6.7	0.71/6.8	0.56/7.1	0.47/7.3	0.44/7.3
	9	0.52/22.4	0.54/20.6	0.54/23.1	0.57/24.2	0.63/16.5	0.61/9.2	0.07/4.5	0.77/6.3	1.02/7.1	1.04/7.7	0.94/7.9	0.94/8.1	0.92/8.1
	11	0.63/23.0	0.64/20.6	0.63/23.9	0.62/24.2	0.63/16.5	0.51/10.4	0.06/4.5	0.64/7.5	0.94/7.7	1.05/8.3	1.09/8.5	1.09/8.7	1.09/8.7
	13	0.63/23.4	0.65/23.1	0.63/23.9	0.60/24.2	0.57/16.5	0.43/12.1	0.05/4.5	0.62/7.5	0.82/9.0	0.97/9.5	1.04/10.1	1.07/9.8	1.09/9.8
	15	0.63/23.4	0.62/23.1	0.59/23.9	0.55/24.2	0.50/16.5	0.36/12.6	0.04/4.5	0.63/10.4	0.69/9.8	0.85/10.5	0.94/10.1	0.98/10.8	0.99/10.8
	17	0.59/23.4	0.58/23.1	0.55/23.9	0.54/24.2	0.43/16.5	0.34/14.0	0.04/4.5	0.64/10.4	0.59/11.6	0.74/11.6	0.83/11.6	0.87/12.1	0.89/12.1
	21	0.44/23.4	0.44/23.1	0.45/23.9	0.44/24.2	0.34/16.5	0.26/14.6	0.03/4.5	0.62/11.2	0.51/12.1	0.64/12.8	0.73/12.6	0.77/12.6	0.74/12.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FIG 7

LONGESTED
 RMS LAT OLSP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
 OF
 CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.004/8.7	.010/10.4	.024/10.5	.046/7.5	.077/9.2	.119/8.5	.144/7.3	.164/7.3	.184/7.3	.045/7.7	.012/7.7	.005/7.7	.000/7.7
	9	.004/12.6	.024/12.1	.053/12.1	.090/11.2	.133/10.5	.171/9.5	.210/8.5	.247/8.5	.284/8.5	.054/9.5	.032/10.1	.014/9.5	.000/7.7
	11	.004/14.3	.034/14.3	.080/13.1	.125/12.6	.170/11.6	.214/10.5	.257/9.5	.299/8.5	.341/8.5	.070/11.2	.055/11.2	.026/11.2	.000/7.7
	13	.004/15.7	.045/15.7	.099/15.3	.149/13.0	.194/11.6	.237/10.5	.279/9.5	.321/8.5	.363/8.5	.113/12.8	.084/12.8	.036/12.8	.000/7.7
	15	.004/17.5	.057/17.5	.112/17.0	.165/14.0	.209/13.0	.251/12.0	.293/11.0	.335/10.0	.377/9.0	.134/14.6	.104/14.6	.044/14.6	.000/7.7
	17	.004/19.6	.061/19.6	.119/19.0	.164/18.5	.207/17.5	.243/16.5	.279/15.5	.315/14.5	.351/13.5	.145/16.5	.115/16.5	.055/16.5	.000/7.7
	19	.004/21.7	.063/21.7	.124/21.0	.169/20.4	.211/19.4	.247/18.4	.283/17.4	.319/16.4	.355/15.4	.157/17.5	.127/17.5	.067/17.5	.000/7.7
21	.004/24.2	.065/24.2	.126/24.2	.170/23.3	.212/22.4	.252/21.4	.294/20.4	.336/19.4	.378/18.4	.201/20.3	.157/19.6	.107/19.6	.054/19.6	.000/7.7
10	7	.004/14.3	.013/12.9	.024/13.1	.032/11.6	.046/9.8	.061/8.7	.077/7.7	.093/7.5	.109/7.5	.023/7.7	.011/7.7	.004/7.7	.000/7.7
	9	.004/15.0	.030/15.0	.063/15.0	.094/13.1	.124/11.6	.154/10.5	.184/9.5	.214/8.5	.244/8.5	.054/9.5	.032/10.1	.014/9.5	.000/7.7
	11	.004/15.1	.046/16.1	.094/15.3	.133/14.3	.171/13.1	.209/12.0	.247/11.0	.285/10.0	.323/9.0	.081/11.2	.044/11.2	.022/11.2	.000/7.7
	13	.004/15.5	.054/17.0	.101/15.5	.140/14.3	.179/13.1	.218/12.0	.257/11.0	.296/10.0	.335/9.0	.094/12.8	.065/12.8	.031/12.8	.000/7.7
	15	.004/17.5	.065/18.5	.121/15.0	.160/14.0	.199/13.0	.238/12.0	.277/11.0	.316/10.0	.355/9.0	.104/14.6	.074/14.6	.038/14.6	.000/7.7
	17	.004/20.3	.069/19.6	.133/19.0	.190/18.5	.229/17.5	.268/16.5	.307/15.5	.346/14.5	.385/13.5	.133/17.0	.103/17.0	.043/16.5	.000/7.7
	19	.004/21.7	.071/21.7	.137/21.7	.193/20.7	.229/20.7	.265/19.6	.301/18.5	.337/17.5	.373/16.5	.141/17.0	.111/17.0	.047/16.5	.000/7.7
21	.004/24.2	.072/24.2	.139/24.2	.195/23.3	.235/22.4	.271/21.4	.307/20.4	.343/19.4	.379/18.4	.146/19.6	.116/19.6	.049/19.6	.000/7.7	
15	7	.004/17.5	.041/16.2	.090/17.5	.133/15.0	.172/13.1	.211/11.6	.250/10.5	.289/9.5	.328/8.5	.077/9.2	.025/9.2	.011/9.2	.000/7.7
	9	.004/18.5	.067/19.6	.123/17.5	.162/15.7	.201/13.9	.240/12.0	.279/11.0	.318/10.0	.357/9.0	.081/11.2	.044/11.2	.022/11.2	.000/7.7
	11	.004/19.6	.076/19.6	.141/18.5	.180/17.5	.219/16.5	.258/16.5	.297/15.5	.336/14.5	.375/13.5	.093/12.8	.054/12.8	.027/12.8	.000/7.7
	13	.004/20.3	.081/20.3	.151/20.3	.190/19.6	.229/18.5	.268/17.5	.307/16.5	.346/15.5	.385/14.5	.111/16.5	.070/16.5	.034/16.5	.000/7.7
	15	.004/22.4	.084/22.4	.156/21.7	.195/20.7	.234/19.6	.273/18.5	.312/17.5	.351/16.5	.390/15.5	.122/17.0	.080/17.0	.041/17.0	.000/7.7
	17	.004/24.2	.085/24.2	.158/23.3	.197/22.4	.236/21.4	.275/20.4	.314/19.4	.353/18.4	.392/17.4	.130/19.6	.086/19.6	.043/19.6	.000/7.7
	19	.004/26.4	.085/26.4	.160/26.2	.199/25.3	.238/24.3	.277/23.3	.316/22.4	.355/21.4	.394/20.4	.136/19.6	.091/19.6	.046/19.6	.000/7.7
21	.004/28.5	.084/28.5	.162/28.5	.201/27.5	.240/26.5	.279/25.5	.318/24.5	.357/23.5	.396/22.5	.141/19.6	.096/19.6	.051/19.6	.000/7.7	
20	7	.004/18.5	.047/17.5	.096/18.5	.139/16.5	.182/14.5	.225/12.5	.268/11.5	.311/10.5	.354/9.5	.081/11.2	.044/11.2	.022/11.2	.000/7.7
	9	.004/19.6	.067/19.6	.123/18.5	.162/17.5	.201/16.5	.240/15.5	.279/14.5	.318/13.5	.357/12.5	.093/12.8	.054/12.8	.027/12.8	.000/7.7
	11	.004/20.3	.076/20.3	.141/19.6	.180/18.5	.219/17.5	.258/16.5	.297/15.5	.336/14.5	.375/13.5	.111/16.5	.070/16.5	.034/16.5	.000/7.7
	13	.004/22.4	.084/22.4	.156/21.7	.195/20.7	.234/19.6	.273/18.5	.312/17.5	.351/16.5	.390/15.5	.122/17.0	.080/17.0	.041/17.0	.000/7.7
	15	.004/24.2	.085/24.2	.158/23.3	.197/22.4	.236/21.4	.275/20.4	.314/19.4	.353/18.4	.392/17.4	.130/19.6	.086/19.6	.043/19.6	.000/7.7
	17	.004/26.4	.085/26.4	.160/26.2	.199/25.3	.238/24.3	.277/23.3	.316/22.4	.355/21.4	.394/20.4	.136/19.6	.091/19.6	.046/19.6	.000/7.7
	19	.004/28.5	.084/28.5	.162/28.5	.201/27.5	.240/26.5	.279/25.5	.318/24.5	.357/23.5	.396/22.5	.141/19.6	.096/19.6	.051/19.6	.000/7.7
21	.004/30.6	.084/30.6	.164/30.6	.203/29.6	.242/28.6	.281/27.6	.320/26.6	.359/25.6	.398/24.6	.146/19.6	.096/19.6	.051/19.6	.000/7.7	
25	7	.004/18.5	.047/17.5	.096/18.5	.139/16.5	.182/14.5	.225/12.5	.268/11.5	.311/10.5	.354/9.5	.081/11.2	.044/11.2	.022/11.2	.000/7.7
	9	.004/19.6	.067/19.6	.123/18.5	.162/17.5	.201/16.5	.240/15.5	.279/14.5	.318/13.5	.357/12.5	.093/12.8	.054/12.8	.027/12.8	.000/7.7
	11	.004/20.3	.076/20.3	.141/19.6	.180/18.5	.219/17.5	.258/16.5	.297/15.5	.336/14.5	.375/13.5	.111/16.5	.070/16.5	.034/16.5	.000/7.7
	13	.004/22.4	.084/22.4	.156/21.7	.195/20.7	.234/19.6	.273/18.5	.312/17.5	.351/16.5	.390/15.5	.122/17.0	.080/17.0	.041/17.0	.000/7.7
	15	.004/24.2	.085/24.2	.158/23.3	.197/22.4	.236/21.4	.275/20.4	.314/19.4	.353/18.4	.392/17.4	.130/19.6	.086/19.6	.043/19.6	.000/7.7
	17	.004/26.4	.085/26.4	.160/26.2	.199/25.3	.238/24.3	.277/23.3	.316/22.4	.355/21.4	.394/20.4	.136/19.6	.091/19.6	.046/19.6	.000/7.7
	19	.004/28.5	.084/28.5	.162/28.5	.201/27.5	.240/26.5	.279/25.5	.318/24.5	.357/23.5	.396/22.5	.141/19.6	.096/19.6	.051/19.6	.000/7.7
21	.004/30.6	.084/30.6	.164/30.6	.203/29.6	.242/28.6	.281/27.6	.320/26.6	.359/25.6	.398/24.6	.146/19.6	.096/19.6	.051/19.6	.000/7.7	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS RUDDER ANGLE IN DEGREES.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM ML

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/8.7	.006/8.7	.015/10.1	.034/9.2	.054/9.0	.091/7.9	.143/7.0	.098/7.0	.048/7.1	.022/7.3	.011/7.5	.004/7.7	.000/8.0
9	9	.000/12.1	.013/12.1	.029/11.5	.052/10.8	.083/9.5	.116/9.2	.144/9.2	.113/9.2	.071/9.2	.042/9.5	.022/9.2	.010/9.2	.000/9.0
11	11	.000/13.4	.018/13.4	.039/13.1	.065/12.6	.094/11.6	.126/10.8	.139/10.5	.117/10.5	.084/10.5	.053/10.5	.033/10.1	.016/10.1	.000/10.0
13	13	.000/14.6	.021/14.6	.046/14.3	.070/13.3	.096/13.4	.125/12.8	.132/12.6	.115/12.1	.084/11.6	.053/11.6	.033/11.2	.016/11.2	.000/11.0
15	15	.000/15.7	.022/15.7	.046/15.7	.070/15.3	.096/15.7	.125/14.6	.132/14.0	.115/13.7	.084/13.1	.053/13.1	.033/12.6	.016/12.6	.000/12.0
17	17	.000/17.5	.023/17.5	.045/17.5	.068/17.0	.090/17.5	.114/16.1	.114/15.7	.105/15.3	.084/14.6	.053/14.6	.033/14.3	.016/14.3	.000/14.0
19	19	.000/19.6	.022/19.6	.044/19.6	.065/19.0	.085/19.6	.106/18.1	.106/17.5	.098/17.5	.084/16.5	.053/16.5	.033/16.5	.016/16.5	.000/16.0
21	21	.000/19.6	.021/19.6	.042/19.6	.062/19.0	.080/19.6	.103/18.5	.103/18.0	.091/17.5	.076/17.0	.050/17.0	.033/16.5	.016/16.5	.000/16.0
10	7	.000/14.0	.006/12.8	.014/12.0	.026/11.6	.040/9.5	.061/8.5	.143/7.0	.098/7.0	.048/7.1	.022/7.3	.011/7.5	.004/7.7	.000/8.0
9	9	.000/15.0	.013/14.6	.028/14.0	.051/13.6	.066/11.2	.126/9.5	.145/9.0	.113/8.3	.071/8.3	.042/8.7	.022/8.7	.010/8.7	.000/9.0
11	11	.000/16.1	.019/15.7	.039/15.0	.064/14.6	.076/12.6	.126/11.2	.140/10.5	.116/10.1	.083/10.5	.054/10.5	.033/11.2	.016/11.2	.000/11.0
13	13	.000/17.0	.021/17.0	.046/16.1	.070/15.3	.096/14.3	.125/13.4	.132/12.6	.115/12.1	.084/11.6	.053/11.6	.033/11.2	.016/11.2	.000/11.0
15	15	.000/18.0	.023/18.0	.046/17.5	.070/16.5	.096/15.7	.125/14.6	.132/14.0	.115/13.7	.084/13.1	.053/13.1	.033/12.6	.016/12.6	.000/12.0
17	17	.000/19.6	.022/19.6	.045/19.0	.068/18.5	.091/17.5	.114/16.5	.114/15.7	.105/15.3	.084/14.6	.053/14.6	.033/14.3	.016/14.3	.000/14.0
19	19	.000/20.3	.022/20.3	.044/20.3	.065/19.0	.085/19.6	.106/18.1	.106/17.5	.098/17.5	.084/16.5	.053/16.5	.033/16.5	.016/16.5	.000/16.0
21	21	.000/21.7	.021/21.7	.042/20.9	.062/20.3	.080/19.6	.103/18.5	.103/18.0	.091/17.5	.076/17.0	.050/17.0	.033/16.5	.016/16.5	.000/16.0
15	7	.000/20.3	.010/19.6	.018/17.5	.031/16.3	.059/11.2	.106/9.0	.143/7.0	.097/7.0	.047/7.1	.022/7.3	.010/7.7	.004/7.7	.000/8.0
9	9	.000/20.3	.014/19.6	.030/17.5	.053/16.3	.065/12.6	.126/10.1	.145/9.0	.112/8.5	.070/8.5	.041/8.7	.022/8.7	.010/9.0	.000/9.0
11	11	.000/20.3	.019/19.6	.040/17.5	.068/15.1	.087/13.7	.126/11.6	.140/10.5	.113/10.1	.083/10.5	.054/10.5	.033/11.2	.016/11.2	.000/11.0
13	13	.000/20.3	.022/19.6	.045/18.0	.072/17.5	.099/16.5	.126/15.3	.132/14.0	.113/12.1	.086/12.1	.053/12.6	.033/12.6	.016/12.6	.000/12.0
15	15	.000/20.3	.023/20.3	.046/20.3	.070/18.5	.092/17.0	.117/15.3	.123/14.0	.109/13.7	.086/13.4	.053/13.1	.033/13.1	.016/13.1	.000/13.0
17	17	.000/20.3	.023/20.3	.046/20.3	.070/18.5	.092/17.0	.117/15.3	.123/14.0	.109/13.7	.086/13.4	.053/13.1	.033/13.1	.016/13.1	.000/13.0
19	19	.000/22.4	.023/22.4	.045/21.7	.066/20.3	.086/18.5	.114/17.0	.105/15.7	.096/15.3	.083/15.0	.053/14.6	.033/14.6	.016/14.6	.000/14.0
21	21	.000/24.2	.022/24.2	.043/23.3	.063/21.7	.081/20.9	.094/19.0	.098/18.0	.090/17.5	.075/17.5	.053/17.0	.033/17.0	.016/17.0	.000/17.0
20	7	.000/24.2	.010/24.2	.023/24.2	.040/19.0	.063/13.4	.113/9.2	.144/7.0	.096/7.0	.046/7.1	.021/7.5	.010/7.7	.004/7.7	.000/8.0
9	9	.000/24.2	.017/24.2	.036/23.3	.059/19.0	.090/13.4	.131/10.5	.146/9.0	.111/8.5	.069/8.7	.040/9.0	.021/9.0	.009/9.0	.000/9.0
11	11	.000/24.2	.023/24.2	.046/23.3	.072/19.0	.101/14.6	.127/12.1	.140/10.5	.114/10.1	.083/10.5	.053/10.5	.033/10.1	.016/10.1	.000/10.0
13	13	.000/27.3	.026/26.2	.051/23.3	.076/19.0	.103/16.1	.132/12.6	.132/12.6	.112/12.1	.084/12.1	.053/12.6	.033/12.6	.016/12.6	.000/12.0
15	15	.000/27.3	.027/26.2	.052/23.3	.076/19.0	.103/16.1	.132/12.6	.132/12.6	.112/12.1	.084/12.1	.053/12.6	.033/12.6	.016/12.6	.000/12.0
17	17	.000/27.3	.027/26.2	.051/23.3	.076/19.0	.103/16.1	.132/12.6	.132/12.6	.112/12.1	.084/12.1	.053/12.6	.033/12.6	.016/12.6	.000/12.0
19	19	.000/27.3	.026/26.2	.049/23.3	.070/19.0	.084/18.5	.114/16.1	.114/15.7	.101/15.3	.082/15.0	.053/14.6	.033/14.6	.016/14.6	.000/14.0
21	21	.000/27.3	.025/26.2	.047/23.3	.066/19.0	.083/21.7	.095/19.6	.097/18.0	.089/17.5	.074/17.5	.053/17.0	.033/16.5	.016/16.5	.000/16.0
25	7	.000/24.2	.009/24.2	.019/24.2	.033/21.7	.053/16.5	.126/9.8	.144/7.0	.094/7.0	.045/7.1	.020/7.5	.009/7.7	.004/7.7	.000/8.0
9	9	.000/24.2	.015/24.2	.031/21.7	.053/21.7	.076/16.5	.136/11.2	.146/9.0	.109/8.5	.067/8.7	.039/9.0	.021/9.0	.009/9.0	.000/9.0
11	11	.000/24.2	.021/24.2	.042/21.7	.061/21.7	.081/15.5	.136/11.2	.146/9.0	.109/8.5	.067/8.7	.039/9.0	.021/9.0	.009/9.0	.000/9.0
13	13	.000/24.2	.025/24.2	.043/21.7	.063/21.7	.081/15.5	.136/11.2	.146/9.0	.109/8.5	.067/8.7	.039/9.0	.021/9.0	.009/9.0	.000/9.0
15	15	.000/24.2	.024/24.2	.043/21.7	.063/21.7	.081/15.5	.136/11.2	.146/9.0	.109/8.5	.067/8.7	.039/9.0	.021/9.0	.009/9.0	.000/9.0
17	17	.000/24.2	.024/24.2	.043/21.7	.063/21.7	.081/15.5	.136/11.2	.146/9.0	.109/8.5	.067/8.7	.039/9.0	.021/9.0	.009/9.0	.000/9.0
19	19	.000/24.2	.024/24.2	.043/21.7	.063/21.7	.081/15.5	.136/11.2	.146/9.0	.109/8.5	.067/8.7	.039/9.0	.021/9.0	.009/9.0	.000/9.0
21	21	.000/24.2	.027/24.2	.043/21.7	.063/21.7	.081/15.5	.136/11.2	.146/9.0	.109/8.5	.067/8.7	.039/9.0	.021/9.0	.009/9.0	.000/9.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGESTED
ARM'S LAT ACC IN G/S/ENQUINTEHED MODAL PERIOD, T, IN SECONDS
OF

CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM HL
(ACC. X 100)

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	008/8.7	013/8.7	031/10.1	063/9.2	123/8.7	251/7.3	474/6.3	308/6.3	160/6.7	066/7.3	033/7.5	015/7.5	0.000/0.000
	9	000/12.1	022/14.3	051/11.2	079/10.5	166/9.2	272/9.0	402/7.9	301/7.5	176/7.7	098/7.9	052/9.2	023/9.2	0.000/0.000
	11	000/13.4	030/14.3	061/12.1	108/11.6	171/10.5	282/9.8	336/9.4	271/9.5	180/9.8	114/9.5	067/10.1	031/10.0	0.000/0.000
	13	000/14.3	030/14.3	064/13.4	117/12.8	193/10.8	281/9.8	233/10.1	171/10.5	156/11.6	116/10.5	072/11.6	034/12.0	0.000/0.000
	15	000/15.7	029/14.3	062/14.3	101/14.9	186/13.6	223/11.2	237/11.2	206/11.1	156/11.6	111/11.6	071/11.6	034/12.0	0.000/0.000
10	7	000/17.5	026/17.5	058/15.7	092/15.3	136/14.6	212/12.6	341/11.6	179/12.6	106/13.1	056/12.8	030/12.6	014/12.6	0.000/0.000
	9	000/17.5	026/17.5	058/15.7	092/15.3	136/14.6	212/12.6	341/11.6	179/12.6	106/13.1	056/12.8	030/12.6	014/12.6	0.000/0.000
	11	000/17.5	026/17.5	058/15.7	092/15.3	136/14.6	212/12.6	341/11.6	179/12.6	106/13.1	056/12.8	030/12.6	014/12.6	0.000/0.000
	13	000/17.5	026/17.5	058/15.7	092/15.3	136/14.6	212/12.6	341/11.6	179/12.6	106/13.1	056/12.8	030/12.6	014/12.6	0.000/0.000
	15	000/17.5	026/17.5	058/15.7	092/15.3	136/14.6	212/12.6	341/11.6	179/12.6	106/13.1	056/12.8	030/12.6	014/12.6	0.000/0.000
15	7	000/19.6	021/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	136/15.3	111/15.0	083/14.6	056/14.6	028/14.6	0.000/0.000
	9	000/19.6	021/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	136/15.3	111/15.0	083/14.6	056/14.6	028/14.6	0.000/0.000
	11	000/19.6	021/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	136/15.3	111/15.0	083/14.6	056/14.6	028/14.6	0.000/0.000
	13	000/19.6	021/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	136/15.3	111/15.0	083/14.6	056/14.6	028/14.6	0.000/0.000
	15	000/19.6	021/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	136/15.3	111/15.0	083/14.6	056/14.6	028/14.6	0.000/0.000
20	7	000/20.3	007/20.3	018/19.6	031/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	083/14.6	056/14.6	028/14.6	0.000/0.000
	9	000/20.3	007/20.3	018/19.6	031/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	083/14.6	056/14.6	028/14.6	0.000/0.000
	11	000/20.3	007/20.3	018/19.6	031/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	083/14.6	056/14.6	028/14.6	0.000/0.000
	13	000/20.3	007/20.3	018/19.6	031/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	083/14.6	056/14.6	028/14.6	0.000/0.000
	15	000/20.3	007/20.3	018/19.6	031/19.6	054/17.5	084/17.5	102/16.5	136/16.1	151/15.7	083/14.6	056/14.6	028/14.6	0.000/0.000
25	7	000/27.3	005/27.3	010/26.2	024/26.2	041/26.2	059/24.2	084/24.2	093/24.2	113/24.2	126/24.2	141/24.2	156/24.2	0.000/0.000
	9	000/27.3	005/27.3	010/26.2	024/26.2	041/26.2	059/24.2	084/24.2	093/24.2	113/24.2	126/24.2	141/24.2	156/24.2	0.000/0.000
	11	000/27.3	005/27.3	010/26.2	024/26.2	041/26.2	059/24.2	084/24.2	093/24.2	113/24.2	126/24.2	141/24.2	156/24.2	0.000/0.000
	13	000/27.3	005/27.3	010/26.2	024/26.2	041/26.2	059/24.2	084/24.2	093/24.2	113/24.2	126/24.2	141/24.2	156/24.2	0.000/0.000
	15	000/27.3	005/27.3	010/26.2	024/26.2	041/26.2	059/24.2	084/24.2	093/24.2	113/24.2	126/24.2	141/24.2	156/24.2	0.000/0.000

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCUSTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.23/11.2	.05/11.2	.03/10.8	.05/10.1	.09/9.0	.10/7.9	.25/7.0	.19/7.0	.11/7.1	.07/7.5	.05/7.5	.04/7.7	.04/7.7
	9	.69/12.6	.07/12.6	.06/12.1	.10/11.6	.14/10.5	.20/9.5	.25/9.0	.22/8.7	.16/8.7	.12/9.0	.09/9.2	.08/9.0	.08/9.0
	11	.11/14.3	.12/14.3	.13/13.1	.15/12.5	.19/12.1	.25/11.6	.29/11.2	.23/10.8	.19/10.8	.16/10.5	.14/10.5	.13/11.2	.12/10.8
	13	.155/15.7	.15/15.7	.16/15.3	.19/15.0	.24/14.5	.29/13.7	.25/13.1	.24/12.6	.21/13.1	.19/12.8	.17/12.6	.16/12.6	.16/12.6
	15	.182/17.5	.18/17.5	.19/17.0	.20/17.0	.24/16.5	.29/16.1	.25/16.5	.24/16.0	.21/16.5	.20/16.5	.18/16.5	.17/16.5	.16/16.5
	17	.199/19.6	.20/19.6	.20/19.0	.21/19.0	.26/18.5	.31/18.0	.27/18.5	.26/18.0	.23/17.5	.22/17.0	.20/17.0	.19/16.5	.18/16.5
	19	.212/20.3	.21/20.3	.21/19.5	.22/19.5	.27/19.0	.32/18.5	.28/19.0	.27/18.5	.24/17.5	.23/17.0	.21/17.0	.20/16.5	.19/16.5
10	7	.22/12.4	.02/12.4	.02/12.4	.03/11.6	.06/11.0	.10/8.3	.24/7.0	.21/6.5	.13/6.7	.08/6.8	.06/7.1	.05/7.3	.04/7.3
	9	.68/15.3	.07/15.3	.04/14.3	.10/13.1	.15/11.6	.20/10.1	.25/9.0	.23/8.7	.18/8.7	.14/9.0	.11/9.0	.10/9.0	.09/9.0
	11	.115/16.1	.11/16.1	.12/15.3	.14/14.3	.18/13.4	.22/12.1	.25/11.2	.24/10.8	.20/10.5	.17/10.5	.15/10.5	.13/10.8	.13/10.8
	13	.152/17.0	.15/17.0	.16/17.5	.18/16.5	.22/15.7	.26/15.3	.22/15.7	.24/15.0	.21/15.0	.20/14.6	.18/14.3	.17/12.6	.17/12.6
	15	.178/18.6	.18/18.6	.19/19.0	.20/19.0	.24/18.5	.29/18.0	.25/18.5	.24/18.0	.21/18.5	.20/18.5	.18/18.5	.17/16.5	.16/16.5
	17	.196/21.7	.19/21.7	.20/20.9	.21/20.3	.26/19.6	.31/19.0	.27/19.5	.26/19.0	.23/17.5	.22/17.0	.20/17.0	.19/16.5	.18/16.5
	19	.209/22.4	.21/22.4	.21/21.7	.22/21.7	.27/21.1	.32/20.9	.28/21.6	.27/21.1	.24/20.3	.23/19.6	.21/19.6	.20/19.6	.19/19.6
15	7	.21/20.3	.02/19.6	.03/17.5	.04/14.3	.08/11.6	.10/9.0	.24/7.0	.22/6.3	.15/6.5	.10/6.8	.07/7.1	.06/7.1	.05/7.1
	9	.65/20.3	.06/19.6	.02/17.5	.10/15.0	.14/12.6	.19/10.8	.25/9.0	.24/8.5	.20/8.5	.16/8.5	.13/8.5	.12/8.7	.11/8.7
	11	.111/20.3	.11/20.3	.12/19.0	.15/16.5	.18/14.6	.23/12.8	.25/11.2	.25/10.8	.22/10.5	.19/10.5	.17/10.5	.16/10.8	.15/10.8
	13	.148/20.3	.15/20.3	.16/19.0	.18/17.5	.20/15.7	.25/14.0	.25/12.6	.25/12.6	.23/14.6	.21/14.3	.19/12.6	.18/12.6	.18/12.6
	15	.175/21.7	.17/21.7	.18/20.3	.20/19.0	.24/17.5	.29/17.0	.25/17.5	.24/17.0	.21/17.5	.20/17.0	.18/16.5	.17/16.5	.16/16.5
	17	.193/23.3	.19/23.3	.20/22.4	.21/22.4	.26/21.7	.31/21.1	.27/21.6	.26/21.1	.23/19.6	.22/19.0	.20/19.0	.19/18.5	.18/18.5
	19	.206/25.1	.20/25.1	.21/23.3	.22/22.4	.27/22.4	.32/21.7	.28/22.4	.27/21.6	.24/20.3	.23/19.6	.21/19.6	.20/19.6	.19/19.6
20	7	.21/27.3	.02/27.3	.02/26.2	.03/25.1	.06/22.4	.10/20.9	.25/20.9	.23/20.3	.15/20.3	.10/19.6	.07/19.6	.06/19.6	.05/19.6
	9	.63/27.3	.06/26.2	.02/25.1	.10/21.7	.14/19.0	.19/17.5	.25/15.0	.24/14.3	.20/13.7	.16/13.7	.13/13.7	.12/13.7	.11/13.7
	11	.109/27.3	.11/26.2	.12/25.1	.14/23.3	.18/21.7	.23/19.0	.25/17.5	.25/17.5	.23/17.0	.21/16.5	.19/16.5	.18/16.5	.17/16.5
	13	.145/27.3	.14/26.2	.15/23.3	.17/21.7	.20/19.0	.24/17.5	.25/16.5	.25/16.5	.23/16.5	.21/16.5	.20/16.5	.19/16.5	.18/16.5
	15	.173/27.3	.17/26.2	.18/23.3	.20/21.7	.24/19.0	.29/18.5	.25/18.0	.25/18.0	.23/17.5	.22/17.0	.20/17.0	.19/16.5	.18/16.5
	17	.191/27.3	.19/26.2	.20/23.3	.21/23.3	.26/22.4	.31/21.7	.27/22.4	.26/21.6	.23/20.3	.22/19.6	.20/19.6	.19/19.6	.18/19.6
	19	.205/27.3	.20/26.2	.21/23.3	.22/22.4	.27/22.4	.32/21.7	.28/22.4	.27/21.6	.24/20.3	.23/19.6	.21/19.6	.20/19.6	.19/19.6
25	7	.20/24.4	.02/24.4	.02/23.3	.03/22.4	.06/20.9	.10/19.6	.24/19.6	.23/19.0	.15/19.6	.10/19.6	.08/19.6	.07/19.6	.06/19.6
	9	.61/24.4	.05/23.3	.02/22.4	.10/21.7	.14/19.0	.19/17.5	.25/15.0	.24/14.3	.20/13.7	.16/13.7	.13/13.7	.12/13.7	.11/13.7
	11	.107/24.4	.11/23.3	.12/22.4	.14/21.7	.18/20.3	.23/18.5	.25/17.5	.25/17.5	.23/17.0	.21/16.5	.20/16.5	.19/16.5	.18/16.5
	13	.144/24.4	.14/23.3	.15/22.4	.17/21.7	.20/19.0	.24/17.5	.25/16.5	.25/16.5	.23/16.5	.21/16.5	.20/16.5	.19/16.5	.18/16.5
	15	.171/24.4	.17/23.3	.18/22.4	.20/21.7	.24/19.0	.29/18.5	.25/18.0	.25/18.0	.23/17.5	.22/17.0	.20/17.0	.19/16.5	.18/16.5
	17	.190/24.4	.19/23.3	.20/22.4	.21/22.4	.26/21.7	.31/21.1	.27/21.6	.26/21.1	.23/19.6	.22/19.0	.20/19.0	.19/18.5	.18/18.5
	19	.203/24.4	.20/23.3	.21/22.4	.22/22.4	.27/22.4	.32/21.7	.28/22.4	.27/21.6	.24/20.3	.23/19.6	.21/19.6	.20/19.6	.19/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FIG 7

LONGESTED
RMS VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.015/11.2	.015/11.2	.020/10.5	.033/9.3	.054/8.7	.140/7.5	.254/5.7	.294/5.7	.113/6.7	.071/7.0	.052/7.3	.044/5.2	.042/5.2
	9	.035/12.6	.038/12.1	.046/11.6	.062/11.2	.093/10.5	.149/8.7	.221/7.9	.294/7.9	.134/8.1	.097/8.5	.076/8.7	.066/8.7	.063/8.7
	11	.054/13.4	.057/13.4	.065/13.1	.079/12.6	.104/11.2	.143/10.5	.190/9.5	.254/7.9	.156/11.2	.110/10.1	.094/10.1	.084/10.1	.081/10.1
	13	.065/14.6	.068/14.6	.074/14.3	.085/13.7	.105/13.4	.133/12.1	.165/11.6	.210/9.5	.132/11.6	.114/11.6	.101/11.2	.094/11.2	.092/11.2
	15	.071/15.1	.073/15.7	.078/15.7	.088/15.3	.102/14.6	.122/13.1	.145/12.6	.170/12.6	.126/13.1	.111/12.8	.103/12.6	.097/12.6	.096/12.6
	17	.072/15.5	.074/15.5	.078/15.5	.086/14.9	.097/15.5	.112/14.1	.129/13.0	.150/13.0	.115/13.0	.106/14.6	.100/14.3	.096/14.3	.095/14.3
10	7	.010/14.3	.011/14.0	.015/13.1	.027/11.6	.054/9.8	.127/7.9	.253/5.7	.232/5.7	.147/6.3	.094/6.4	.069/6.7	.059/7.0	.056/7.0
	9	.028/15.0	.030/15.0	.037/14.0	.053/12.8	.093/11.2	.134/9.2	.221/7.9	.217/7.5	.165/7.9	.126/8.3	.102/8.3	.090/8.3	.086/8.3
	11	.044/15.1	.046/15.7	.054/15.3	.079/14.3	.104/13.6	.134/11.2	.189/9.5	.192/9.2	.161/9.2	.133/9.5	.117/10.1	.108/9.8	.104/9.8
	13	.054/17.0	.056/17.0	.063/16.1	.076/15.3	.095/14.3	.123/12.6	.164/11.6	.169/11.2	.150/11.6	.133/11.2	.121/11.2	.114/12.6	.113/12.6
	15	.060/18.5	.062/18.0	.067/17.5	.078/16.5	.094/15.7	.116/14.6	.145/12.6	.150/12.6	.138/13.1	.127/12.8	.119/12.6	.114/12.6	.113/12.6
	17	.062/18.6	.064/18.6	.068/18.0	.077/18.5	.089/17.5	.107/16.5	.129/14.0	.134/15.0	.127/15.0	.120/14.6	.114/14.3	.111/14.3	.110/14.3
15	7	.006/20.3	.007/19.6	.011/17.5	.021/14.3	.047/11.2	.116/8.5	.253/5.7	.254/5.7	.182/6.3	.123/6.4	.089/6.7	.073/7.0	.069/7.0
	9	.020/20.3	.022/19.6	.029/17.5	.043/15.0	.072/12.6	.127/10.1	.220/7.9	.240/6.3	.202/6.7	.164/7.3	.137/7.5	.122/7.7	.117/7.7
	11	.034/20.3	.036/19.6	.043/17.5	.058/15.7	.083/13.7	.125/11.6	.189/9.5	.210/9.0	.191/9.0	.168/9.0	.157/9.2	.140/9.2	.137/9.0
	13	.043/20.3	.046/19.6	.052/17.0	.065/17.5	.086/16.6	.118/12.8	.164/11.6	.182/11.2	.173/10.8	.160/10.5	.142/11.2	.137/12.6	.136/12.6
	15	.049/21.7	.051/20.9	.057/20.3	.069/18.5	.085/17.0	.110/15.3	.144/12.6	.160/12.6	.156/13.1	.149/12.8	.142/12.6	.137/12.6	.136/12.6
	17	.052/22.4	.054/22.4	.059/21.7	.070/20.1	.082/18.5	.102/17.0	.128/14.0	.142/15.0	.141/14.6	.137/14.3	.133/14.3	.130/14.3	.129/14.3
20	7	.004/23.9	.005/23.6	.007/23.3	.015/14.0	.034/13.4	.105/9.2	.252/5.7	.281/5.7	.213/6.3	.150/6.8	.111/7.1	.090/7.1	.083/7.3
	9	.014/27.3	.015/26.2	.021/23.3	.034/19.0	.062/16.0	.117/10.8	.220/7.9	.253/6.3	.240/6.7	.206/7.3	.179/7.5	.162/7.7	.156/7.7
	11	.025/27.3	.027/26.2	.033/23.3	.047/19.0	.077/15.0	.112/12.1	.189/9.5	.227/9.0	.223/7.1	.207/7.7	.192/7.9	.182/8.1	.179/8.3
	13	.034/27.3	.036/26.2	.042/23.3	.055/19.0	.077/15.0	.112/12.1	.189/9.5	.227/9.0	.223/7.1	.207/7.7	.192/7.9	.182/8.1	.179/8.3
	15	.040/27.3	.041/26.2	.047/23.3	.058/19.0	.077/15.0	.112/12.1	.189/9.5	.227/9.0	.223/7.1	.207/7.7	.192/7.9	.182/8.1	.179/8.3
	17	.043/27.3	.045/26.2	.050/23.3	.060/20.5	.075/19.0	.105/14.5	.144/12.6	.170/12.6	.176/13.1	.174/12.8	.170/12.6	.167/12.6	.166/12.1
25	7	.004/27.1	.004/28.3	.005/27.0	.010/25.1	.031/15.5	.095/9.8	.252/5.7	.301/6.3	.238/6.7	.172/6.8	.126/7.3	.102/7.3	.095/7.5
	9	.004/27.3	.004/28.3	.005/27.0	.010/25.1	.031/15.5	.095/9.8	.252/5.7	.301/6.3	.238/6.7	.172/6.8	.126/7.3	.102/7.3	.095/7.5
	11	.004/27.3	.004/28.3	.005/27.0	.010/25.1	.031/15.5	.095/9.8	.252/5.7	.301/6.3	.238/6.7	.172/6.8	.126/7.3	.102/7.3	.095/7.5
	13	.004/27.3	.004/28.3	.005/27.0	.010/25.1	.031/15.5	.095/9.8	.252/5.7	.301/6.3	.238/6.7	.172/6.8	.126/7.3	.102/7.3	.095/7.5
	15	.004/27.3	.004/28.3	.005/27.0	.010/25.1	.031/15.5	.095/9.8	.252/5.7	.301/6.3	.238/6.7	.172/6.8	.126/7.3	.102/7.3	.095/7.5
	17	.004/27.3	.004/28.3	.005/27.0	.010/25.1	.031/15.5	.095/9.8	.252/5.7	.301/6.3	.238/6.7	.172/6.8	.126/7.3	.102/7.3	.095/7.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

UNQUANTED
RMS VER ACC IN G'S/ENCOUNTERED MOUL PERIOD, T, IN SECONDS
OF
(ACC, X 100)
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM RL

V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	0.27/11.2	0.30/11.2	0.30/10.5	0.30/9.8	0.30/9.5	0.30/9.0	0.30/8.5	0.30/8.0	0.30/7.5	0.30/7.0	0.30/6.5	0.30/6.0	0.30/5.5	0.30/5.0	0.30/4.5	0.30/4.0
	9	0.27/11.2	0.30/11.2	0.30/10.5	0.30/9.8	0.30/9.5	0.30/9.0	0.30/8.5	0.30/8.0	0.30/7.5	0.30/7.0	0.30/6.5	0.30/6.0	0.30/5.5	0.30/5.0	0.30/4.5	0.30/4.0
	11	0.27/11.2	0.30/11.2	0.30/10.5	0.30/9.8	0.30/9.5	0.30/9.0	0.30/8.5	0.30/8.0	0.30/7.5	0.30/7.0	0.30/6.5	0.30/6.0	0.30/5.5	0.30/5.0	0.30/4.5	0.30/4.0
	13	0.27/11.2	0.30/11.2	0.30/10.5	0.30/9.8	0.30/9.5	0.30/9.0	0.30/8.5	0.30/8.0	0.30/7.5	0.30/7.0	0.30/6.5	0.30/6.0	0.30/5.5	0.30/5.0	0.30/4.5	0.30/4.0
	15	0.27/11.2	0.30/11.2	0.30/10.5	0.30/9.8	0.30/9.5	0.30/9.0	0.30/8.5	0.30/8.0	0.30/7.5	0.30/7.0	0.30/6.5	0.30/6.0	0.30/5.5	0.30/5.0	0.30/4.5	0.30/4.0
	17	0.27/11.2	0.30/11.2	0.30/10.5	0.30/9.8	0.30/9.5	0.30/9.0	0.30/8.5	0.30/8.0	0.30/7.5	0.30/7.0	0.30/6.5	0.30/6.0	0.30/5.5	0.30/5.0	0.30/4.5	0.30/4.0
	19	0.27/11.2	0.30/11.2	0.30/10.5	0.30/9.8	0.30/9.5	0.30/9.0	0.30/8.5	0.30/8.0	0.30/7.5	0.30/7.0	0.30/6.5	0.30/6.0	0.30/5.5	0.30/5.0	0.30/4.5	0.30/4.0
10	7	0.14/14.3	0.16/14.3	0.16/13.1	0.16/11.9	0.16/10.8	0.16/9.8	0.16/8.8	0.16/7.8	0.16/6.8	0.16/5.8	0.16/4.8	0.16/3.8	0.16/2.8	0.16/1.8	0.16/0.8	0.16/0.0
	9	0.14/14.3	0.16/14.3	0.16/13.1	0.16/11.9	0.16/10.8	0.16/9.8	0.16/8.8	0.16/7.8	0.16/6.8	0.16/5.8	0.16/4.8	0.16/3.8	0.16/2.8	0.16/1.8	0.16/0.8	0.16/0.0
	11	0.14/14.3	0.16/14.3	0.16/13.1	0.16/11.9	0.16/10.8	0.16/9.8	0.16/8.8	0.16/7.8	0.16/6.8	0.16/5.8	0.16/4.8	0.16/3.8	0.16/2.8	0.16/1.8	0.16/0.8	0.16/0.0
	13	0.14/14.3	0.16/14.3	0.16/13.1	0.16/11.9	0.16/10.8	0.16/9.8	0.16/8.8	0.16/7.8	0.16/6.8	0.16/5.8	0.16/4.8	0.16/3.8	0.16/2.8	0.16/1.8	0.16/0.8	0.16/0.0
	15	0.14/14.3	0.16/14.3	0.16/13.1	0.16/11.9	0.16/10.8	0.16/9.8	0.16/8.8	0.16/7.8	0.16/6.8	0.16/5.8	0.16/4.8	0.16/3.8	0.16/2.8	0.16/1.8	0.16/0.8	0.16/0.0
	17	0.14/14.3	0.16/14.3	0.16/13.1	0.16/11.9	0.16/10.8	0.16/9.8	0.16/8.8	0.16/7.8	0.16/6.8	0.16/5.8	0.16/4.8	0.16/3.8	0.16/2.8	0.16/1.8	0.16/0.8	0.16/0.0
	19	0.14/14.3	0.16/14.3	0.16/13.1	0.16/11.9	0.16/10.8	0.16/9.8	0.16/8.8	0.16/7.8	0.16/6.8	0.16/5.8	0.16/4.8	0.16/3.8	0.16/2.8	0.16/1.8	0.16/0.8	0.16/0.0
15	7	0.06/20.3	0.07/19.6	0.07/17.5	0.07/15.4	0.07/13.4	0.07/11.4	0.07/9.4	0.07/7.4	0.07/5.4	0.07/3.4	0.07/1.4	0.07/0.4	0.07/0.0	0.07/0.0	0.07/0.0	0.07/0.0
	9	0.06/20.3	0.07/19.6	0.07/17.5	0.07/15.4	0.07/13.4	0.07/11.4	0.07/9.4	0.07/7.4	0.07/5.4	0.07/3.4	0.07/1.4	0.07/0.4	0.07/0.0	0.07/0.0	0.07/0.0	0.07/0.0
	11	0.06/20.3	0.07/19.6	0.07/17.5	0.07/15.4	0.07/13.4	0.07/11.4	0.07/9.4	0.07/7.4	0.07/5.4	0.07/3.4	0.07/1.4	0.07/0.4	0.07/0.0	0.07/0.0	0.07/0.0	0.07/0.0
	13	0.06/20.3	0.07/19.6	0.07/17.5	0.07/15.4	0.07/13.4	0.07/11.4	0.07/9.4	0.07/7.4	0.07/5.4	0.07/3.4	0.07/1.4	0.07/0.4	0.07/0.0	0.07/0.0	0.07/0.0	0.07/0.0
	15	0.06/20.3	0.07/19.6	0.07/17.5	0.07/15.4	0.07/13.4	0.07/11.4	0.07/9.4	0.07/7.4	0.07/5.4	0.07/3.4	0.07/1.4	0.07/0.4	0.07/0.0	0.07/0.0	0.07/0.0	0.07/0.0
	17	0.06/20.3	0.07/19.6	0.07/17.5	0.07/15.4	0.07/13.4	0.07/11.4	0.07/9.4	0.07/7.4	0.07/5.4	0.07/3.4	0.07/1.4	0.07/0.4	0.07/0.0	0.07/0.0	0.07/0.0	0.07/0.0
	19	0.06/20.3	0.07/19.6	0.07/17.5	0.07/15.4	0.07/13.4	0.07/11.4	0.07/9.4	0.07/7.4	0.07/5.4	0.07/3.4	0.07/1.4	0.07/0.4	0.07/0.0	0.07/0.0	0.07/0.0	0.07/0.0
20	7	0.06/29.9	0.07/27.3	0.06/23.3	0.06/19.4	0.06/15.4	0.06/11.4	0.06/7.4	0.06/3.4	0.06/0.4	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0
	9	0.06/29.9	0.07/27.3	0.06/23.3	0.06/19.4	0.06/15.4	0.06/11.4	0.06/7.4	0.06/3.4	0.06/0.4	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0
	11	0.06/29.9	0.07/27.3	0.06/23.3	0.06/19.4	0.06/15.4	0.06/11.4	0.06/7.4	0.06/3.4	0.06/0.4	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0
	13	0.06/29.9	0.07/27.3	0.06/23.3	0.06/19.4	0.06/15.4	0.06/11.4	0.06/7.4	0.06/3.4	0.06/0.4	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0
	15	0.06/29.9	0.07/27.3	0.06/23.3	0.06/19.4	0.06/15.4	0.06/11.4	0.06/7.4	0.06/3.4	0.06/0.4	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0
	17	0.06/29.9	0.07/27.3	0.06/23.3	0.06/19.4	0.06/15.4	0.06/11.4	0.06/7.4	0.06/3.4	0.06/0.4	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0
	19	0.06/29.9	0.07/27.3	0.06/23.3	0.06/19.4	0.06/15.4	0.06/11.4	0.06/7.4	0.06/3.4	0.06/0.4	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0	0.06/0.0
25	7	0.16/6.8	0.14/6.7	0.11/6.3	0.08/5.9	0.06/5.5	0.04/5.1	0.03/4.7	0.02/4.3	0.01/3.9	0.01/3.5	0.01/3.1	0.01/2.7	0.01/2.3	0.01/1.9	0.01/1.5	0.01/1.1
	9	0.16/6.8	0.14/6.7	0.11/6.3	0.08/5.9	0.06/5.5	0.04/5.1	0.03/4.7	0.02/4.3	0.01/3.9	0.01/3.5	0.01/3.1	0.01/2.7	0.01/2.3	0.01/1.9	0.01/1.5	0.01/1.1
	11	0.16/6.8	0.14/6.7	0.11/6.3	0.08/5.9	0.06/5.5	0.04/5.1	0.03/4.7	0.02/4.3	0.01/3.9	0.01/3.5	0.01/3.1	0.01/2.7	0.01/2.3	0.01/1.9	0.01/1.5	0.01/1.1
	13	0.16/6.8	0.14/6.7	0.11/6.3	0.08/5.9	0.06/5.5	0.04/5.1	0.03/4.7	0.02/4.3	0.01/3.9	0.01/3.5	0.01/3.1	0.01/2.7	0.01/2.3	0.01/1.9	0.01/1.5	0.01/1.1
	15	0.16/6.8	0.14/6.7	0.11/6.3	0.08/5.9	0.06/5.5	0.04/5.1	0.03/4.7	0.02/4.3	0.01/3.9	0.01/3.5	0.01/3.1	0.01/2.7	0.01/2.3	0.01/1.9	0.01/1.5	0.01/1.1
	17	0.16/6.8	0.14/6.7	0.11/6.3	0.08/5.9	0.06/5.5	0.04/5.1	0.03/4.7	0.02/4.3	0.01/3.9	0.01/3.5	0.01/3.1	0.01/2.7	0.01/2.3	0.01/1.9	0.01/1.5	0.01/1.1
	19	0.16/6.8	0.14/6.7	0.11/6.3	0.08/5.9	0.06/5.5	0.04/5.1	0.03/4.7	0.02/4.3	0.01/3.9	0.01/3.5	0.01/3.1	0.01/2.7	0.01/2.3	0.01/1.9	0.01/1.5	0.01/1.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUJAL WAVE PERIOD IN SECONDS.

LONG-CRESTED
RMS LAT UISP IN FEET/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM HL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	000/8.7 000/11.6 000/12.6 000/13.3 000/14.3 000/15.7 000/17.5 000/19.6 000/19.6	043/9.0 071/11.6 087/12.6 093/14.3 094/15.3 092/17.5 088/19.6 084/19.6 084/19.6	088/9.0 138/11.2 164/12.1 173/13.0 174/13.3 169/15.0 164/17.5 164/19.6 159/19.6	156/8.7 206/8.7 256/8.7 281/13.1 289/13.3 283/17.0 271/19.0 263/21.7 254/21.7	236/8.3 265/8.7 283/8.7 288/13.4 284/13.5 284/15.0 283/18.0 283/19.0 283/20.9	253/7.9 257/8.3 266/8.7 282/14.3 282/14.3 282/16.1 283/18.0 283/18.5 283/20.9	156/7.9 179/8.5 189/11.6 202/14.0 202/14.0 214/15.7 222/18.0 223/18.5 223/20.9	199/7.0 210/8.3 206/8.5 207/13.1 207/13.3 212/15.0 216/17.5 219/17.5 222/20.3	173/6.7 207/8.3 206/8.5 203/13.1 203/13.1 202/15.0 202/17.5 202/17.5 203/20.3	113/6.8 159/8.5 188/8.5 184/12.8 170/14.6 121/16.3 163/14.3 163/16.5 163/19.0	064/7.1 104/8.3 116/8.5 120/12.6 120/12.6 121/14.3 121/16.3 121/16.5 120/19.6	028/7.3 051/8.5 059/8.5 062/8.7 063/14.3 063/14.3 063/16.5 063/16.5 063/19.0	028/7.3 051/8.5 059/8.5 062/8.7 063/14.3 063/14.3 063/16.5 063/16.5 063/19.0
10	7	000/13.7 000/14.0 000/14.6 000/15.3 000/17.0 000/18.0 000/18.0 000/19.6 000/21.7	063/13.1 105/14.0 122/14.6 124/15.3 120/16.5 113/18.0 106/19.6 106/19.6 101/21.7	127/12.1 194/13.1 224/14.0 226/15.0 217/16.1 205/17.5 194/19.0 185/21.7 185/21.7	162/10.4 258/12.1 282/13.1 282/14.3 282/15.0 280/18.5 283/20.3 283/20.3 283/20.3	259/8.7 289/9.0 293/14.6 292/14.3 292/15.0 293/17.5 293/19.6 293/20.9 293/20.9	275/7.9 271/8.5 280/12.1 286/13.7 286/13.7 285/17.0 285/19.6 285/21.7 285/21.7	152/7.9 176/8.5 189/11.6 202/14.0 202/14.0 223/18.0 223/18.0 223/20.9 223/20.9	179/7.0 195/8.5 194/9.0 195/13.4 195/13.4 201/15.3 205/17.5 210/18.0 214/20.3	147/6.7 182/8.3 185/9.0 183/13.1 183/13.1 184/17.0 185/17.5 185/17.5 187/20.3	093/6.8 138/8.5 149/9.0 149/9.2 104/14.3 149/14.6 105/16.5 149/17.0 150/19.6	051/7.1 088/8.5 101/9.2 103/9.2 104/14.3 105/16.5 105/16.5 105/17.0 105/19.6	022/7.3 043/8.7 052/9.0 054/9.2 054/14.3 054/16.5 054/16.5 054/16.5 054/19.0	022/7.3 043/8.7 052/9.0 054/9.2 054/14.3 054/16.5 054/16.5 054/16.5 054/19.0
15	7	000/17.5 000/18.0 000/18.0 000/18.0 000/18.0 000/18.0 000/18.0 000/18.0 000/18.0	177/19.6 184/19.6 191/19.6 184/19.6 184/19.6 184/19.6 184/19.6 184/19.6 184/19.6	252/17.5 306/17.5 312/17.5 295/17.5 272/17.5 250/17.5 231/17.5 231/17.5 231/17.5	316/14.3 375/14.3 377/14.3 356/14.3 331/14.3 307/14.3 287/20.3 287/20.3 287/20.3	368/10.5 336/11.0 340/13.1 330/14.6 317/17.0 304/18.5 292/20.9 292/20.9 292/20.9	293/8.1 293/8.5 275/12.5 271/14.0 271/17.0 264/17.5 264/17.5 264/17.5 264/17.5	148/7.5 174/8.5 189/11.6 203/14.0 215/15.7 224/18.0 224/18.0 224/18.0 224/18.0	161/7.0 179/8.7 182/9.2 185/13.4 191/15.3 196/17.5 201/18.0 201/18.0 205/20.3	126/6.7 160/8.5 166/9.5 166/13.1 167/15.0 168/17.0 170/19.6 170/19.6 173/20.3	078/6.8 118/8.5 132/9.5 133/10.1 133/14.6 133/16.5 134/19.6 134/19.6 136/19.6	042/7.1 075/8.5 089/10.1 092/10.1 092/14.3 092/16.5 092/19.0 092/19.0 093/19.6	018/7.3 036/8.7 045/9.0 047/10.0 047/10.0 047/16.5 047/19.0 047/19.0 047/19.0	018/7.3 036/8.7 045/9.0 047/10.0 047/10.0 047/16.5 047/19.0 047/19.0 047/19.0
20	7	000/19.6 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3	294/19.6 301/28.6 271/26.2 238/26.2 209/26.2 186/26.2 168/26.2 154/26.2 154/26.2	497/19.6 494/23.3 444/23.3 392/23.3 347/23.3 312/23.3 284/23.3 263/23.3 263/23.3	515/19.0 534/19.0 496/19.0 446/19.0 402/19.0 365/19.0 337/19.0 316/19.0 316/19.0	420/13.4 443/13.4 422/13.4 393/13.4 367/13.4 344/13.4 325/21.7 312/24.2 312/24.2	313/8.3 300/8.7 291/12.6 287/14.6 285/16.1 282/18.0 279/19.6 276/22.4 276/22.4	147/7.5 174/8.7 189/11.6 203/14.0 216/15.7 224/18.0 224/18.0 224/18.0 224/18.0	147/7.0 167/8.7 172/9.8 175/13.4 181/15.3 187/17.5 192/20.3 197/20.3 197/20.3	111/6.7 143/8.5 152/9.8 153/10.5 153/10.5 155/12.0 158/19.6 161/20.3 161/20.3	067/6.8 102/8.5 117/10.1 119/10.5 120/14.6 120/17.0 121/19.6 123/19.6 123/19.6	036/7.1 064/8.7 079/10.1 082/11.2 082/11.2 081/16.5 082/19.6 083/19.6 083/19.6	015/7.3 031/8.7 039/10.0 041/11.2 041/11.2 041/16.5 041/19.0 042/19.6 042/19.6	015/7.3 031/8.7 039/10.0 041/11.2 041/11.2 041/16.5 041/19.0 042/19.6 042/19.6
25	7	000/19.6 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3 000/20.3	241/9.0 313/19.6 299/19.6 270/33.1 264/33.1 222/33.1 203/33.1 188/33.1 188/33.1	417/19.6 464/23.3 437/23.3 399/23.3 367/23.3 340/23.3 317/23.3 299/23.3 299/23.3	622/34.3 671/34.3 600/34.3 552/34.3 527/34.3 477/34.3 433/34.3 395/34.3 371/34.3	641/17.0 594/16.5 531/16.5 475/16.5 432/16.5 402/16.5 371/16.5 352/16.5 352/16.5	319/8.7 311/8.7 291/12.6 287/14.6 285/16.1 282/18.0 279/19.6 276/22.4 276/22.4	146/7.5 175/8.7 190/11.6 204/14.0 224/18.0 224/18.0 224/18.0 224/18.0 224/18.0	134/7.0 155/9.0 152/10.5 167/13.4 173/15.3 179/17.5 184/20.3 190/20.3 190/20.3	097/6.7 127/8.5 138/10.5 140/10.8 141/11.2 143/11.2 146/19.6 150/20.3 150/20.3	057/6.8 090/8.7 104/10.1 104/11.2 104/11.2 104/11.2 110/19.6 113/19.6 113/19.6	030/7.1 055/8.7 069/10.1 073/11.2 074/11.2 074/11.2 074/19.6 074/19.6 074/19.6	013/7.3 026/8.7 035/10.0 036/11.2 039/12.0 038/12.0 038/19.6 038/19.6 038/19.6	013/7.3 026/8.7 035/10.0 036/11.2 039/12.0 038/12.0 038/19.6 038/19.6 038/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

FIG 7

LONG-TESTED
MMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES														140
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	
5	7	.00/4.7	.024/9.0	.059/9.0	.111/8.7	.185/8.3	.230/7.0	.150/7.3	.211/6.3	.171/6.3	.107/6.8	.059/7.1	.026/7.0	.000/6.0	.000/6.0	
9	7	.00/13.4	.040/11.2	.081/10.6	.132/9.7	.190/8.5	.230/7.0	.150/7.3	.211/6.3	.171/6.3	.107/6.8	.059/7.1	.026/7.0	.000/6.0	.000/6.0	
11	7	.00/12.1	.045/12.1	.088/11.6	.130/9.7	.170/8.5	.207/8.3	.146/8.3	.191/8.1	.161/8.3	.128/7.9	.085/8.1	.041/8.3	.000/6.0	.000/6.0	
13	7	.00/13.4	.042/13.1	.085/13.1	.121/12.6	.149/8.7	.151/8.3	.121/12.6	.149/8.5	.140/8.3	.115/8.3	.079/8.5	.041/8.5	.000/6.0	.000/6.0	
15	7	.00/14.3	.042/14.3	.079/14.0	.116/13.7	.132/13.7	.133/14.3	.111/14.0	.123/13.7	.122/8.5	.102/8.5	.072/8.5	.037/8.5	.000/6.0	.000/6.0	
17	7	.00/14.6	.038/15.7	.072/15.3	.109/15.3	.117/15.0	.117/16.1	.103/15.7	.111/15.3	.109/15.0	.082/14.6	.055/14.3	.034/8.5	.000/6.0	.000/6.0	
19	7	.00/16.1	.035/15.7	.055/15.7	.089/17.0	.095/16.5	.107/16.5	.096/18.0	.100/17.5	.097/17.0	.082/14.6	.055/14.3	.034/8.5	.000/6.0	.000/6.0	
21	7	.00/17.5	.031/17.5	.059/17.5	.081/19.0	.095/18.5	.107/18.5	.089/19.0	.092/17.5	.088/17.0	.074/17.0	.053/16.5	.028/16.5	.000/6.0	.000/6.0	
10	7	.00/13.4	.029/13.1	.054/12.1	.103/10.8	.161/8.7	.230/7.0	.146/7.3	.202/6.3	.161/6.3	.100/6.8	.054/6.7	.024/7.0	.000/6.0	.000/6.0	
9	7	.00/14.0	.067/13.7	.084/12.8	.136/11.6	.183/8.7	.209/8.3	.143/8.3	.184/8.1	.172/7.7	.121/7.9	.080/8.1	.034/8.3	.000/6.0	.000/6.0	
11	7	.00/14.6	.052/14.3	.100/13.4	.136/12.6	.167/11.6	.176/8.5	.131/8.5	.158/8.5	.155/8.5	.124/8.7	.083/9.0	.042/9.0	.000/6.0	.000/6.0	
13	7	.00/15.0	.050/14.6	.095/14.0	.129/13.1	.149/12.6	.152/12.6	.120/12.6	.136/8.7	.135/9.0	.111/9.0	.077/9.2	.040/9.0	.000/6.0	.000/6.0	
15	7	.00/15.3	.046/15.3	.087/14.6	.117/14.3	.133/14.3	.134/14.6	.111/14.0	.120/13.7	.118/9.0	.098/9.2	.069/9.2	.036/9.2	.000/6.0	.000/6.0	
17	7	.00/16.1	.041/15.7	.078/15.3	.105/15.3	.119/15.7	.120/16.5	.103/15.7	.108/15.3	.105/15.0	.087/14.6	.062/9.2	.033/9.2	.000/6.0	.000/6.0	
19	7	.00/17.0	.037/16.5	.070/16.5	.094/17.0	.107/17.5	.108/17.0	.096/18.0	.098/17.5	.094/17.0	.078/16.5	.056/16.5	.029/16.5	.000/6.0	.000/6.0	
21	7	.00/17.0	.033/17.0	.063/17.5	.085/18.5	.096/19.0	.099/19.0	.089/18.0	.090/17.5	.085/17.5	.071/17.0	.051/16.5	.027/16.5	.000/6.0	.000/6.0	
15	7	.00/20.3	.035/19.6	.077/17.5	.125/14.3	.166/10.5	.234/7.9	.142/7.0	.191/6.3	.151/6.3	.093/6.4	.051/6.7	.022/7.0	.000/6.0	.000/6.0	
9	7	.00/20.3	.051/19.6	.105/17.5	.154/14.3	.180/11.2	.205/8.3	.140/8.3	.176/7.9	.162/7.7	.120/7.9	.076/8.1	.036/8.3	.000/6.0	.000/6.0	
11	7	.00/20.3	.054/19.6	.108/17.5	.154/14.3	.180/11.2	.205/8.3	.140/8.3	.176/7.9	.162/7.7	.120/7.9	.076/8.1	.036/8.3	.000/6.0	.000/6.0	
13	7	.00/20.3	.051/19.6	.101/17.5	.140/14.3	.153/13.1	.152/12.6	.119/12.6	.133/9.2	.129/9.2	.107/9.5	.075/10.1	.039/9.0	.000/6.0	.000/6.0	
15	7	.00/20.3	.045/19.6	.091/17.5	.125/14.3	.156/14.6	.155/15.3	.111/14.0	.117/13.7	.114/9.5	.093/9.5	.067/10.1	.035/10.1	.000/6.0	.000/6.0	
17	7	.00/20.3	.042/19.6	.081/17.5	.111/14.3	.122/17.0	.121/17.0	.103/15.7	.106/15.3	.101/15.0	.084/14.6	.060/10.1	.031/10.1	.000/6.0	.000/6.0	
19	7	.00/20.3	.037/19.6	.072/17.5	.098/14.3	.109/15.5	.109/17.5	.096/18.0	.089/17.5	.090/17.0	.075/16.5	.054/16.5	.028/16.5	.000/6.0	.000/6.0	
21	7	.00/20.3	.033/19.6	.064/17.5	.088/14.3	.099/14.0	.099/19.0	.090/18.0	.089/17.5	.088/17.5	.068/17.0	.049/16.5	.025/16.5	.000/6.0	.000/6.0	
20	7	.00/20.3	.033/19.6	.064/17.5	.088/14.3	.099/14.0	.099/19.0	.090/18.0	.089/17.5	.088/17.5	.068/17.0	.049/16.5	.025/16.5	.000/6.0	.000/6.0	
9	7	.00/20.3	.043/27.3	.095/23.3	.154/19.0	.192/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
11	7	.00/27.3	.047/26.2	.097/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
13	7	.00/27.3	.046/26.2	.091/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
15	7	.00/27.3	.042/26.2	.083/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
17	7	.00/27.3	.039/26.2	.074/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
19	7	.00/27.3	.036/26.2	.068/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
21	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
25	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
9	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
11	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
13	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
15	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
17	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
19	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	
21	7	.00/27.3	.033/26.2	.062/23.3	.154/19.0	.193/13.4	.232/8.3	.140/7.0	.184/6.3	.144/6.3	.088/6.4	.048/6.7	.021/7.0	.000/6.0	.000/6.0	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGESTED
RMS LAT ACC IN GVS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF

(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM HL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/8.7	.059/9.0	.127/8.7	.252/8.1	.464/7.9	.683/7.9	.808/6.5	.757/5.2	.558/5.7	.331/6.4	.180/6.7	.079/7.0	.000/8.0
9	9	.000/8.7	.074/11.2	.155/10.5	.274/8.1	.444/8.3	.566/7.5	.615/8.3	.606/6.5	.528/6.7	.370/7.3	.240/7.5	.109/7.9	.000/8.0
11	11	.000/11.6	.075/11.6	.153/11.2	.249/8.7	.369/8.5	.442/8.3	.335/8.5	.469/8.1	.435/7.7	.327/7.9	.214/8.1	.106/8.3	.000/8.0
13	13	.000/12.6	.076/12.1	.138/12.1	.215/8.7	.301/8.5	.344/8.3	.272/8.5	.367/8.3	.350/8.1	.273/8.3	.183/8.3	.093/8.5	.000/8.0
15	15	.000/13.4	.062/12.6	.121/12.1	.183/8.1	.248/8.7	.282/8.3	.242/8.5	.292/8.3	.284/8.1	.226/8.3	.155/8.3	.079/8.5	.000/8.0
17	17	.000/13.4	.054/13.4	.105/13.1	.153/12.6	.206/8.7	.232/8.3	.191/8.5	.242/8.3	.234/8.1	.189/8.3	.130/8.3	.067/8.5	.000/8.0
19	19	.000/13.4	.047/13.4	.091/13.1	.133/12.6	.174/8.7	.195/8.3	.163/14.0	.202/8.3	.196/8.3	.159/8.3	.111/8.5	.057/8.5	.000/8.0
21	21	.000/14.3	.041/14.3	.074/14.0	.115/13.7	.149/8.7	.166/8.3	.141/15.7	.172/8.3	.166/8.3	.136/8.3	.095/8.5	.049/8.5	.000/8.0
10	7	.000/13.4	.042/13.1	.100/12.1	.144/10.8	.344/8.7	.626/7.0	.844/6.5	.776/5.2	.585/5.7	.352/6.4	.191/6.7	.084/6.5	.000/8.0
9	9	.000/14.0	.065/13.7	.140/12.8	.271/11.2	.373/8.7	.533/7.7	.605/7.9	.626/6.5	.551/6.7	.394/7.3	.243/7.5	.116/7.9	.000/8.0
11	11	.000/14.3	.069/14.0	.142/13.1	.216/12.1	.316/8.7	.418/8.1	.484/8.3	.480/7.9	.456/7.5	.351/7.9	.231/8.1	.116/8.5	.000/8.0
13	13	.000/14.6	.064/14.3	.130/13.4	.192/12.1	.263/8.7	.330/8.3	.368/8.5	.376/8.3	.367/8.1	.293/8.3	.199/8.7	.102/9.0	.000/8.0
15	15	.000/15.0	.056/14.6	.113/14.0	.166/12.8	.219/8.7	.267/8.3	.223/8.5	.302/8.5	.297/8.3	.242/8.7	.167/9.0	.087/9.0	.000/8.0
17	17	.000/15.0	.049/15.0	.099/14.0	.142/13.1	.195/8.7	.221/8.3	.189/14.0	.247/8.5	.245/8.3	.201/9.0	.140/9.0	.073/9.0	.000/8.0
19	19	.000/15.3	.043/15.0	.085/14.3	.122/13.4	.157/13.4	.186/8.3	.162/14.0	.207/8.5	.204/8.5	.163/9.0	.119/9.2	.062/9.0	.000/8.0
21	21	.000/15.3	.037/15.0	.073/14.3	.106/13.4	.135/14.6	.159/8.3	.140/15.7	.175/15.3	.173/8.5	.144/9.0	.101/9.2	.053/9.0	.000/8.0
15	7	.000/20.3	.032/19.5	.043/17.5	.174/14.3	.249/10.5	.601/7.5	.879/6.5	.786/5.2	.604/5.7	.369/6.3	.202/6.5	.089/6.5	.000/8.0
9	9	.000/20.3	.050/19.6	.117/17.5	.211/14.3	.306/10.8	.487/7.9	.393/7.9	.626/6.3	.566/6.5	.410/6.8	.257/7.3	.123/7.5	.000/8.0
11	11	.000/20.3	.054/19.6	.119/17.5	.200/14.3	.271/11.2	.382/8.1	.321/8.3	.485/7.5	.468/7.5	.367/7.9	.246/8.1	.123/8.3	.000/8.0
13	13	.000/20.3	.050/19.6	.109/17.5	.176/14.3	.231/11.6	.307/8.3	.254/8.5	.381/8.3	.378/7.9	.304/8.3	.213/8.7	.109/9.0	.000/8.0
15	15	.000/20.3	.044/19.6	.096/17.5	.152/14.3	.196/12.1	.247/8.3	.200/8.5	.306/8.7	.306/8.5	.254/8.7	.174/9.2	.093/9.0	.000/8.0
17	17	.000/20.3	.039/19.6	.083/17.5	.130/14.3	.166/12.6	.207/8.3	.167/14.0	.251/8.7	.252/8.5	.211/9.0	.150/9.2	.074/9.0	.000/8.0
19	19	.000/20.3	.034/19.6	.072/17.5	.112/14.3	.143/13.1	.175/14.3	.160/14.0	.203/9.0	.210/8.7	.177/9.0	.126/9.2	.066/9.0	.000/8.0
21	21	.000/20.3	.030/19.6	.063/17.5	.097/14.3	.123/13.7	.150/15.7	.139/15.7	.178/15.3	.178/8.7	.150/9.2	.108/9.2	.056/9.0	.000/8.0
20	7	.000/34.9	.016/31.4	.043/26.2	.125/19.0	.278/13.4	.543/8.1	.874/6.5	.797/5.2	.624/5.7	.383/6.4	.212/6.7	.093/6.5	.000/8.0
9	9	.000/29.6	.021/26.2	.070/23.3	.151/19.0	.283/13.4	.439/8.3	.389/7.9	.636/5.7	.585/6.3	.426/6.8	.270/7.1	.129/7.3	.000/8.0
11	11	.000/27.3	.032/26.2	.076/23.3	.154/19.0	.231/13.4	.347/8.3	.319/8.3	.494/7.5	.485/7.1	.382/7.7	.259/8.1	.130/8.3	.000/8.0
13	13	.000/27.3	.032/26.2	.073/23.3	.141/19.0	.214/13.4	.280/8.5	.260/8.5	.388/8.5	.391/8.1	.320/8.3	.225/8.7	.116/9.0	.000/8.0
15	15	.000/27.3	.030/26.2	.067/23.3	.136/19.0	.182/13.4	.230/8.5	.220/8.5	.311/9.0	.317/8.5	.265/8.7	.189/9.2	.098/9.0	.000/8.0
17	17	.000/27.3	.024/26.2	.060/23.3	.130/19.0	.155/13.4	.193/8.5	.180/14.0	.255/9.2	.261/8.7	.220/9.0	.158/10.1	.083/10.0	.000/8.0
19	19	.000/27.3	.025/26.2	.054/23.3	.092/19.0	.133/13.4	.164/15.7	.160/14.0	.213/9.2	.217/9.2	.184/9.2	.133/10.1	.070/10.0	.000/8.0
21	21	.000/27.3	.023/26.2	.048/23.3	.081/19.0	.115/13.4	.141/16.1	.139/15.7	.180/15.3	.184/9.2	.156/9.5	.113/10.1	.059/10.0	.000/8.0
25	7	.000/7.7	.018/7.3	.025/39.3	.056/27.3	.207/16.5	.446/8.7	.473/6.5	.803/5.2	.632/5.7	.393/6.4	.217/6.7	.096/6.5	.000/8.0
9	9	.000/52.4	.014/39.3	.029/31.4	.085/24.2	.225/16.5	.368/8.7	.385/7.9	.640/5.7	.593/6.3	.438/6.8	.278/7.3	.134/7.5	.000/8.0
11	11	.000/37.0	.016/33.1	.036/29.9	.094/24.2	.237/16.5	.300/8.7	.317/8.3	.498/7.5	.493/6.7	.393/7.5	.267/7.7	.135/7.9	.000/8.0
13	13	.000/34.9	.018/33.1	.041/29.9	.093/24.2	.181/16.5	.247/8.7	.262/8.5	.392/8.3	.398/8.3	.330/8.3	.232/8.5	.121/8.7	.000/8.0
15	15	.000/34.9	.020/33.1	.042/29.9	.087/24.2	.156/16.5	.207/8.7	.219/8.5	.315/9.2	.323/8.5	.273/9.0	.195/9.2	.103/9.0	.000/8.0
17	17	.000/34.9	.020/33.1	.041/29.9	.080/24.2	.135/16.5	.176/8.7	.186/14.0	.258/9.5	.265/9.0	.227/9.2	.164/10.1	.087/10.0	.000/8.0
19	19	.000/34.9	.019/33.1	.039/29.9	.072/24.2	.117/16.5	.151/16.1	.150/14.0	.215/9.5	.221/9.2	.190/9.5	.138/10.1	.074/10.0	.000/8.0
21	21	.000/34.9	.018/33.1	.037/29.9	.065/24.2	.103/16.5	.139/15.7	.139/15.7	.182/15.3	.187/9.5	.161/9.5	.117/10.1	.063/11.0	.000/8.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS RADIAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

UNCLASSIFIED														
RMS VIB DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OF														
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM HL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.121/10.5	.124/13.5	.150/10.1	.193/ 9.2	.261/ 8.3	.322/ 7.0	.228/ 7.0	.316/ 6.3	.290/ 6.5	.225/ 6.8	.178/ 7.1	.153/ 7.1	.166/ 7.1
9	9	.223/11.6	.227/11.6	.243/11.2	.276/10.5	.305/ 9.5	.313/ 8.7	.244/ 9.0	.314/ 8.1	.336/ 7.9	.313/ 7.9	.286/ 8.1	.267/ 8.3	.261/ 8.3
11	11	.283/12.6	.287/12.6	.296/12.1	.307/11.6	.313/11.2	.299/10.8	.251/11.2	.300/10.1	.334/ 9.2	.337/ 9.2	.329/ 9.2	.322/ 9.2	.314/ 9.2
13	13	.307/14.3	.309/14.3	.311/14.0	.312/13.7	.306/13.4	.287/13.1	.254/12.6	.288/12.1	.321/11.6	.334/11.2	.337/11.2	.337/11.2	.336/11.2
15	15	.312/15.7	.312/15.7	.311/15.3	.307/15.0	.297/14.6	.271/14.5	.256/14.7	.273/13.7	.295/13.4	.323/12.8	.334/12.6	.334/12.6	.335/12.6
17	17	.287/17.5	.287/17.5	.285/17.5	.284/17.5	.287/16.5	.271/16.5	.255/16.0	.272/15.5	.295/15.0	.310/14.6	.320/14.3	.325/14.3	.326/14.3
19	19	.301/19.6	.300/19.6	.297/19.6	.290/19.0	.283/18.0	.261/18.5	.256/18.0	.261/17.5	.245/17.5	.299/17.0	.309/16.5	.314/16.5	.315/16.5
21	21	.295/22.4	.294/22.4	.291/22.4	.284/22.4	.275/21.7	.259/21.7	.256/20.9	.265/20.3	.274/20.3	.291/19.6	.300/19.6	.305/19.0	.306/19.0
10	7	.107/13.7	.113/13.4	.134/12.6	.174/11.2	.233/ 9.2	.291/ 7.5	.225/ 7.0	.303/ 6.3	.282/ 6.5	.220/ 6.8	.174/ 7.1	.149/ 7.1	.162/ 7.1
9	9	.204/14.6	.210/14.3	.228/13.4	.255/12.6	.293/10.8	.294/ 9.2	.241/ 9.0	.306/ 8.1	.330/ 7.9	.311/ 7.9	.286/ 8.1	.268/ 8.3	.261/ 8.3
11	11	.263/15.3	.267/15.0	.276/14.3	.289/13.1	.295/12.1	.273/11.6	.244/11.2	.294/10.1	.324/ 9.5	.335/ 9.2	.329/ 9.2	.322/ 9.2	.319/ 9.2
13	13	.288/16.1	.294/16.1	.294/15.3	.276/14.3	.277/13.4	.271/13.4	.251/12.6	.283/12.1	.316/11.6	.331/11.2	.336/11.2	.336/11.2	.336/10.8
15	15	.294/18.0	.294/18.0	.296/17.5	.274/16.5	.276/15.7	.270/15.0	.252/15.0	.275/14.5	.303/13.4	.320/12.8	.329/12.6	.333/12.6	.334/12.6
17	17	.294/19.6	.294/19.6	.292/19.0	.288/18.5	.284/17.5	.265/17.5	.252/17.0	.268/17.0	.291/16.5	.308/16.0	.318/15.3	.323/14.3	.324/14.3
19	19	.290/21.7	.289/21.7	.287/20.9	.281/20.3	.273/19.6	.261/19.0	.252/18.0	.264/17.5	.282/17.5	.297/17.0	.306/16.5	.312/16.5	.312/16.5
21	21	.286/24.2	.285/24.2	.282/24.2	.277/23.3	.269/22.4	.260/21.7	.253/20.9	.262/20.3	.276/20.3	.289/19.6	.298/19.6	.303/19.0	.304/19.0
15	7	.096/20.3	.102/19.6	.121/17.5	.159/14.3	.215/10.8	.274/ 8.1	.223/ 7.0	.295/ 6.3	.274/ 6.3	.215/ 6.8	.168/ 7.1	.143/ 7.1	.135/ 7.1
9	9	.187/20.3	.193/19.6	.210/17.5	.246/14.3	.287/12.1	.277/10.5	.239/ 9.0	.301/ 8.3	.325/ 7.9	.307/ 8.1	.281/ 8.1	.263/ 8.3	.257/ 8.3
11	11	.244/20.3	.249/19.6	.268/17.5	.271/15.0	.281/13.4	.273/12.1	.245/11.2	.290/10.1	.325/ 9.5	.330/ 9.2	.325/ 9.2	.316/ 9.2	.315/ 9.2
13	13	.271/20.3	.272/19.6	.276/17.5	.281/16.5	.280/14.6	.261/14.0	.248/12.6	.279/12.1	.312/11.6	.327/11.2	.332/11.2	.332/11.2	.332/10.8
15	15	.281/20.3	.281/19.6	.282/17.5	.281/16.5	.276/14.0	.253/13.3	.244/12.6	.272/12.1	.298/11.6	.316/11.2	.325/11.2	.329/11.2	.330/11.2
17	17	.282/20.3	.281/19.6	.280/20.3	.277/20.3	.270/18.5	.253/17.5	.243/17.0	.265/17.5	.288/16.5	.304/16.0	.314/15.3	.319/14.3	.321/14.3
19	19	.274/20.3	.274/20.3	.276/23.3	.272/23.3	.266/20.9	.256/19.6	.243/18.0	.261/17.5	.279/17.5	.293/17.0	.303/16.5	.308/16.5	.310/16.5
21	21	.277/25.1	.276/25.1	.274/26.6	.269/25.1	.263/23.3	.256/22.4	.250/20.9	.259/20.3	.273/20.3	.286/19.6	.294/19.6	.299/19.0	.301/19.0
20	7	.094/34.9	.098/31.4	.112/25.1	.144/19.0	.203/13.4	.256/ 8.7	.222/ 7.0	.294/ 6.3	.271/ 6.3	.213/ 6.8	.166/ 7.1	.140/ 7.1	.131/ 7.1
9	9	.174/27.3	.182/26.2	.194/23.3	.214/19.0	.253/13.4	.294/10.8	.236/ 9.0	.301/ 8.3	.324/ 7.7	.306/ 7.9	.281/ 8.1	.262/ 8.1	.255/ 8.3
11	11	.233/27.3	.235/26.2	.240/23.3	.253/19.0	.267/13.4	.263/12.6	.242/11.2	.289/10.1	.323/ 9.5	.329/ 9.2	.321/ 9.2	.316/ 9.2	.313/ 9.8
13	13	.259/27.3	.259/26.2	.260/23.3	.264/19.0	.268/16.1	.251/15.6	.245/12.9	.276/12.1	.310/11.6	.324/11.2	.329/11.2	.329/11.2	.328/11.2
15	15	.270/27.3	.269/26.2	.268/23.3	.267/19.0	.266/16.0	.250/16.1	.246/15.7	.269/15.0	.297/13.4	.313/12.8	.322/12.6	.325/12.6	.326/12.6
17	17	.272/27.3	.271/26.2	.268/23.3	.265/19.0	.262/16.0	.246/16.0	.246/16.0	.263/15.5	.285/15.0	.301/14.6	.310/14.6	.315/14.3	.317/14.3
19	19	.271/27.3	.270/26.2	.267/23.3	.263/19.0	.258/21.7	.251/19.6	.246/18.0	.259/17.5	.276/17.5	.290/17.0	.299/16.5	.305/16.5	.306/16.5
21	21	.270/27.3	.268/26.2	.265/23.3	.261/25.2	.257/22.4	.251/22.4	.248/20.9	.257/20.3	.271/20.3	.283/19.6	.291/19.6	.296/19.0	.298/19.0
25	7	.097/52.4	.107/ 9.0	.114/52.4	.135/27.3	.167/16.5	.243/ 8.7	.220/ 7.0	.297/ 6.3	.273/ 6.7	.213/ 6.8	.165/ 7.1	.134/ 7.3	.130/ 7.3
9	9	.179/52.4	.185/44.9	.188/33.1	.202/24.2	.236/16.5	.254/11.2	.234/ 9.0	.305/ 8.3	.326/ 7.1	.312/ 7.5	.286/ 7.7	.264/ 7.9	.261/ 7.9
11	11	.228/37.0	.230/33.1	.230/29.9	.245/24.2	.252/16.5	.255/13.1	.240/11.2	.291/10.1	.326/ 9.5	.333/ 9.2	.327/ 9.2	.320/ 9.0	.318/ 9.0
13	13	.251/34.9	.251/33.1	.249/29.9	.246/24.2	.255/16.5	.253/15.0	.242/12.6	.278/12.1	.311/11.6	.326/11.2	.330/11.2	.331/11.2	.330/11.2
15	15	.261/34.9	.260/33.1	.257/29.9	.253/24.2	.254/16.5	.251/15.0	.244/15.7	.269/15.0	.297/13.4	.313/13.1	.322/12.6	.325/12.6	.326/12.6
17	17	.263/34.9	.262/33.1	.258/29.9	.253/24.2	.252/16.5	.246/16.5	.246/16.5	.262/16.5	.284/16.0	.300/15.6	.309/14.6	.314/14.3	.316/14.3
19	19	.262/34.9	.261/33.1	.258/29.9	.253/24.2	.250/20.9	.246/20.9	.245/20.9	.257/20.3	.269/20.3	.281/19.6	.289/19.6	.294/19.0	.295/19.0
21	21	.262/34.9	.261/33.1	.257/29.9	.253/24.2	.250/20.9	.246/20.9	.245/20.9	.255/20.3	.269/20.3	.281/19.6	.289/19.6	.294/19.0	.295/19.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
WAVE VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 11.0 FT FROM PL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.77/10.5	.082/10.5	.100/9.8	.130/9.0	.210/7.9	.314/6.3	.233/5.3	.364/5.7	.293/6.3	.217/6.4	.171/6.7	.139/7.0	.143/7.0
	9	.423/11.2	.124/11.2	.145/10.8	.174/10.0	.214/9.0	.255/7.3	.233/7.3	.296/6.5	.298/7.0	.264/7.3	.235/7.5	.217/7.7	.211/7.9
	11	.433/12.1	.147/12.1	.154/12.0	.175/11.6	.194/10.8	.205/10.1	.183/9.8	.245/8.1	.264/8.7	.234/9.0	.204/9.2	.177/9.5	.230/9.5
	13	.444/13.4	.145/13.1	.154/12.8	.163/12.6	.174/12.0	.186/11.6	.161/11.6	.225/10.8	.226/11.2	.201/10.1	.174/10.1	.147/10.4	.220/9.2
	15	.356/14.3	.134/14.3	.142/14.0	.150/13.5	.157/13.0	.164/12.6	.142/12.6	.175/12.1	.194/10.8	.200/10.5	.200/10.1	.200/10.1	.200/10.8
	17	.166/15.7	.127/15.7	.129/15.3	.133/15.0	.137/14.5	.140/14.0	.127/14.0	.152/13.7	.164/13.1	.175/11.6	.147/11.2	.119/11.2	.204/11.2
	19	.115/16.1	.116/16.1	.117/16.0	.120/15.5	.122/15.0	.123/14.5	.115/14.5	.134/13.7	.148/13.0	.154/12.6	.130/12.6	.100/12.6	.160/12.6
	21	.103/16.0	.105/16.0	.107/15.5	.109/15.0	.111/14.5	.112/14.0	.105/14.0	.120/13.5	.131/12.6	.137/12.6	.113/12.6	.083/12.6	.143/14.3
10	7	.487/13.7	.053/12.8	.067/12.6	.099/11.5	.160/9.0	.255/7.0	.231/6.3	.346/5.7	.312/6.3	.238/6.4	.184/6.7	.133/7.0	.156/7.0
	9	.087/14.3	.092/14.0	.107/13.1	.133/11.6	.174/10.1	.227/8.1	.207/7.9	.301/6.3	.299/6.7	.233/7.3	.184/7.7	.133/7.7	.248/7.7
	11	.106/15.0	.110/14.6	.121/14.0	.140/12.6	.164/11.2	.194/10.5	.181/9.8	.250/8.1	.282/8.7	.231/9.0	.184/9.2	.133/9.5	.263/9.5
	13	.110/15.1	.113/15.7	.121/14.6	.133/13.4	.149/12.6	.166/12.1	.159/11.6	.210/10.8	.241/9.2	.200/9.0	.154/9.0	.107/9.0	.249/9.0
	15	.107/17.0	.109/16.5	.114/15.3	.123/14.5	.133/13.4	.145/13.4	.141/12.6	.170/12.1	.206/11.6	.218/9.5	.177/10.1	.125/10.1	.226/10.1
	17	.101/17.5	.102/17.0	.106/16.5	.112/15.5	.120/14.5	.128/14.0	.126/14.0	.151/13.7	.174/13.1	.190/11.6	.154/11.2	.107/11.2	.201/11.2
	19	.094/18.5	.095/18.5	.094/18.0	.103/16.5	.104/15.5	.114/15.0	.114/14.5	.136/13.7	.156/13.0	.167/12.6	.136/12.6	.094/12.6	.174/12.6
	21	.087/20.3	.088/20.3	.091/20.9	.094/20.3	.098/19.5	.103/18.0	.103/17.5	.122/17.5	.138/17.0	.148/16.5	.118/16.5	.083/16.5	.154/14.3
15	7	.269/20.3	.031/19.6	.043/17.5	.069/14.3	.123/10.8	.222/7.5	.228/6.3	.352/5.7	.328/6.3	.256/6.4	.201/6.7	.154/7.0	.169/7.0
	9	.058/20.3	.062/19.6	.075/17.5	.100/14.3	.141/11.6	.197/8.7	.204/7.9	.310/6.3	.339/6.7	.291/7.3	.231/7.7	.184/7.7	.266/7.7
	11	.075/20.3	.079/19.6	.090/17.5	.119/14.3	.137/12.6	.171/10.8	.174/9.8	.258/8.1	.286/8.7	.233/8.3	.184/8.3	.133/8.3	.290/8.3
	13	.082/20.3	.084/19.6	.093/17.5	.117/15.3	.127/13.7	.149/12.8	.157/11.6	.216/10.1	.256/9.2	.270/9.0	.225/9.2	.177/9.0	.275/9.0
	15	.082/20.3	.084/19.6	.090/17.5	.101/15.3	.116/13.7	.132/12.6	.134/12.6	.184/12.1	.218/10.8	.235/9.5	.204/10.1	.154/10.1	.248/10.1
	17	.079/20.3	.081/19.6	.086/17.5	.094/15.3	.105/14.0	.117/13.0	.124/12.6	.159/13.7	.188/13.1	.204/11.2	.174/11.2	.133/11.2	.220/11.2
	19	.076/20.3	.077/19.6	.081/17.5	.087/15.3	.095/14.0	.106/13.0	.112/12.6	.140/13.7	.164/13.0	.179/12.6	.154/12.6	.119/12.6	.195/12.6
	21	.072/20.3	.073/19.6	.076/17.5	.081/15.3	.084/14.0	.095/13.0	.102/12.6	.124/13.7	.145/13.0	.158/12.6	.133/12.6	.100/12.6	.171/14.3
20	7	.192/33.1	.020/29.9	.026/26.2	.045/17.0	.094/13.4	.167/9.0	.226/6.3	.364/5.7	.347/6.3	.275/6.4	.218/6.7	.154/7.0	.175/7.0
	9	.362/27.3	.039/26.2	.049/23.3	.071/17.0	.113/13.4	.171/10.8	.202/9.0	.323/6.3	.363/6.7	.347/6.8	.321/7.5	.301/7.7	.294/7.7
	11	.512/27.3	.054/26.2	.063/23.3	.082/17.0	.113/13.4	.152/11.6	.177/9.8	.269/8.1	.320/7.1	.331/7.7	.324/8.1	.320/8.3	.320/8.3
	13	.586/27.3	.061/26.2	.069/23.3	.084/17.0	.107/13.4	.150/11.6	.155/11.6	.224/10.1	.272/8.7	.292/8.3	.300/9.2	.301/9.0	.361/9.0
	15	.612/27.3	.063/26.2	.070/23.3	.079/17.0	.094/13.4	.126/14.6	.137/12.6	.190/12.1	.231/10.5	.253/9.5	.264/10.1	.270/10.1	.270/10.1
	17	.612/27.3	.063/26.2	.068/23.3	.075/17.0	.092/13.0	.109/12.6	.123/11.6	.154/13.7	.193/13.1	.219/11.2	.237/11.2	.239/11.2	.239/11.2
	19	.609/27.3	.061/26.2	.061/23.3	.073/17.0	.085/13.0	.109/12.6	.111/12.6	.140/13.7	.173/13.0	.191/12.6	.203/12.6	.211/12.6	.211/12.6
	21	.589/27.3	.059/26.2	.063/23.3	.070/17.0	.079/13.0	.093/12.6	.101/12.6	.128/13.7	.152/13.0	.169/12.6	.195/14.3	.187/14.3	.187/14.3
25	7	.237/37.1	.023/34.3	.031/31.4	.044/25.2	.064/18.5	.137/8.7	.224/6.3	.341/5.7	.367/6.3	.294/6.8	.232/7.1	.184/7.3	.185/7.3
	9	.244/41.9	.025/33.9	.031/31.4	.044/24.2	.067/18.5	.150/10.5	.201/7.9	.341/6.3	.393/6.7	.343/7.5	.336/7.5	.329/7.7	.329/7.7
	11	.324/34.9	.035/33.1	.043/29.9	.054/24.2	.071/17.0	.160/10.5	.211/7.9	.341/6.3	.393/6.7	.343/7.5	.336/7.5	.329/7.7	.358/7.9
	13	.373/34.9	.042/33.1	.054/27.3	.063/24.2	.084/18.5	.161/10.5	.212/7.9	.342/6.3	.394/6.7	.344/7.5	.337/7.5	.330/8.3	.335/8.3
	15	.444/34.9	.046/33.1	.053/27.3	.064/24.2	.084/18.5	.162/10.5	.213/7.9	.343/6.3	.395/6.7	.345/7.5	.338/7.5	.331/7.9	.398/9.8
	17	.463/34.9	.044/33.1	.053/27.3	.063/24.2	.079/18.5	.163/10.5	.214/7.9	.344/6.3	.396/6.7	.346/7.5	.339/7.5	.332/7.9	.262/10.8
	19	.463/34.9	.044/33.1	.053/27.3	.063/24.2	.079/18.5	.163/10.5	.214/7.9	.344/6.3	.396/6.7	.346/7.5	.339/7.5	.332/7.9	.262/10.8
	21	.463/34.9	.044/33.1	.053/27.3	.063/24.2	.079/18.5	.163/10.5	.214/7.9	.344/6.3	.396/6.7	.346/7.5	.339/7.5	.332/7.9	.262/10.8

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

REDS VEH ACC IN UNSCOUTED MODAL PERIOD, T_{OE} IN SECONDS

V	T	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180																																																																																																																																																																																																																																														
5	7	158410.5	171110.1	184110.5	197110.9	210111.3	223111.7	236112.1	249112.5	262112.9	275113.3	288113.7	301114.1	314114.5	327114.9	340115.3	353115.7	366116.1	379116.5	392116.9	405117.3	418117.7	431118.1	444118.5	457118.9	470119.3	483119.7	496120.1	509120.5	522120.9	535121.3	548121.7	561122.1	574122.5	587122.9	600123.3	613123.7	626124.1	639124.5	652124.9	665125.3	678125.7	691126.1	704126.5	717126.9	730127.3	743127.7	756128.1	769128.5	782128.9	795129.3	808129.7	821130.1	834130.5	847130.9	860131.3	873131.7	886132.1	899132.5	912132.9	925133.3	938133.7	951134.1	964134.5	977134.9	990135.3	1003135.7	1016136.1	1029136.5	1042136.9	1055137.3	1068137.7	1081138.1	1094138.5	1107138.9	1120139.3	1133139.7	1146140.1	1159140.5	1172140.9	1185141.3	1198141.7	1211142.1	1224142.5	1237142.9	1250143.3	1263143.7	1276144.1	1289144.5	1302144.9	1315145.3	1328145.7	1341146.1	1354146.5	1367146.9	1380147.3	1393147.7	1406148.1	1419148.5	1432148.9	1445149.3	1458149.7	1471150.1	1484150.5	1497150.9	1510151.3	1523151.7	1536152.1	1549152.5	1562152.9	1575153.3	1588153.7	1601154.1	1614154.5	1627154.9	1640155.3	1653155.7	1666156.1	1679156.5	1692156.9	1705157.3	1718157.7	1731158.1	1744158.5	1757158.9	1770159.3	1783159.7	1796160.1	1809160.5	1822160.9	1835161.3	1848161.7	1861162.1	1874162.5	1887162.9	1900163.3	1913163.7	1926164.1	1939164.5	1952164.9	1965165.3	1978165.7	1991166.1	2004166.5	2017166.9	2030167.3	2043167.7	2056168.1	2069168.5	2082168.9	2095169.3	2108169.7	2121170.1	2134170.5	2147170.9	2160171.3	2173171.7	2186172.1	2199172.5	2212172.9	2225173.3	2238173.7	2251174.1	2264174.5	2277174.9	2290175.3	2303175.7	2316176.1	2329176.5	2342176.9	2355177.3	2368177.7	2381178.1	2394178.5	2407178.9	2420179.3	2433179.7	2446180.1	2459180.5	2472180.9	2485181.3	2498181.7	2511182.1	2524182.5	2537182.9	2550183.3	2563183.7	2576184.1	2589184.5	2602184.9	2615185.3	2628185.7	2641186.1	2654186.5	2667186.9	2680187.3	2693187.7	2706188.1	2719188.5	2732188.9	2745189.3	2758189.7	2771190.1	2784190.5	2797190.9	2810191.3	2823191.7	2836192.1	2849192.5	2862192.9	2875193.3	2888193.7	2901194.1	2914194.5	2927194.9	2940195.3	2953195.7	2966196.1	2979196.5	2992196.9	3005197.3	3018197.7	3031198.1	3044198.5	3057198.9	3070199.3	3083199.7	3096200.1	3109200.5	3122200.9	3135201.3	3148201.7	3161202.1	3174202.5	3187202.9	3200203.3	3213203.7	3226204.1	3239204.5	3252204.9	3265205.3	3278205.7	3291206.1	3304206.5	3317206.9	3330207.3	3343207.7	3356208.1	3369208.5	3382208.9	3395209.3	3408209.7	3421210.1	3434210.5	3447210.9	3460211.3	3473211.7	3486212.1	3499212.5	3512212.9	3525213.3	3538213.7	3551214.1	3564214.5	3577214.9	3590215.3	3603215.7	3616216.1	3629216.5	3642216.9	3655217.3	3668217.7	3681218.1	3694218.5	3707218.9	37

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUTUAL WAVE PERIOD IN SECONDS.

RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS OF HELICOPTER DECK HULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM BL													
SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165
5	7	0.00/13.7	0.03/9.0	0.07/9.0	0.12/8.7	0.20/8.3	0.28/7.9	0.40/7.4	0.56/6.9	0.80/7.0	0.97/7.0	0.55/7.1	0.24/7.3
9	7	0.00/11.6	0.05/11.6	0.11/11.2	0.17/11.2	0.24/10.7	0.32/10.3	0.40/9.9	0.48/9.5	0.56/9.1	0.64/8.7	0.72/8.3	0.80/7.9
13	7	0.00/13.4	0.07/13.1	0.13/13.1	0.20/12.6	0.27/12.1	0.34/11.6	0.41/11.1	0.48/10.6	0.55/10.1	0.62/9.6	0.69/9.1	0.76/8.6
15	7	0.00/15.3	0.08/15.3	0.14/15.3	0.21/15.3	0.28/14.8	0.35/14.3	0.42/13.8	0.49/13.3	0.56/12.8	0.63/12.3	0.70/11.8	0.77/11.3
17	7	0.00/17.5	0.09/17.5	0.15/17.5	0.22/17.5	0.29/17.0	0.36/16.5	0.43/16.0	0.50/15.5	0.57/15.0	0.64/14.5	0.71/14.0	0.78/13.5
19	7	0.00/19.6	0.08/19.6	0.14/19.6	0.21/19.6	0.28/19.1	0.35/18.6	0.42/18.1	0.49/17.6	0.56/17.1	0.63/16.6	0.70/16.1	0.77/15.6
21	7	0.00/20.3	0.07/20.3	0.13/20.3	0.20/20.3	0.27/20.3	0.34/20.3	0.41/20.3	0.48/20.3	0.55/20.3	0.62/20.3	0.69/20.3	0.76/20.3
10	7	0.00/13.7	0.05/13.1	0.10/13.1	0.16/13.1	0.23/12.6	0.30/12.1	0.37/11.6	0.44/11.1	0.51/10.6	0.58/10.1	0.65/9.6	0.72/9.1
11	7	0.00/15.0	0.07/15.0	0.13/15.0	0.20/15.0	0.27/14.5	0.34/14.0	0.41/13.5	0.48/13.0	0.55/12.5	0.62/12.0	0.69/11.5	0.76/11.0
13	7	0.00/17.0	0.09/17.0	0.15/17.0	0.22/17.0	0.29/16.5	0.36/16.0	0.43/15.5	0.50/15.0	0.57/14.5	0.64/14.0	0.71/13.5	0.78/13.0
15	7	0.00/18.5	0.10/18.5	0.16/18.5	0.23/18.5	0.30/18.0	0.37/17.5	0.44/17.0	0.51/16.5	0.58/16.0	0.65/15.5	0.72/15.0	0.79/14.5
17	7	0.00/19.6	0.09/19.6	0.15/19.6	0.22/19.6	0.29/19.1	0.36/18.6	0.43/18.1	0.50/17.6	0.57/17.1	0.64/16.6	0.71/16.1	0.78/15.6
19	7	0.00/20.3	0.08/20.3	0.14/20.3	0.21/20.3	0.28/20.3	0.35/20.3	0.42/20.3	0.49/20.3	0.56/20.3	0.63/20.3	0.70/20.3	0.77/20.3
21	7	0.00/20.3	0.07/20.3	0.13/20.3	0.20/20.3	0.27/20.3	0.34/20.3	0.41/20.3	0.48/20.3	0.55/20.3	0.62/20.3	0.69/20.3	0.76/20.3
15	7	0.00/19.6	0.12/19.6	0.18/19.6	0.25/19.6	0.32/19.1	0.39/18.6	0.46/18.1	0.53/17.6	0.60/17.1	0.67/16.6	0.74/16.1	0.81/15.6
9	7	0.00/11.6	0.05/11.6	0.11/11.6	0.17/11.6	0.24/11.1	0.31/10.6	0.38/10.1	0.45/9.6	0.52/9.1	0.59/8.6	0.66/8.1	0.73/7.6
13	7	0.00/13.4	0.07/13.4	0.13/13.4	0.20/13.4	0.27/12.9	0.34/12.4	0.41/11.9	0.48/11.4	0.55/10.9	0.62/10.4	0.69/9.9	0.76/9.4
15	7	0.00/15.3	0.08/15.3	0.14/15.3	0.21/15.3	0.28/14.8	0.35/14.3	0.42/13.8	0.49/13.3	0.56/12.8	0.63/12.3	0.70/11.8	0.77/11.3
17	7	0.00/17.5	0.09/17.5	0.15/17.5	0.22/17.5	0.29/17.0	0.36/16.5	0.43/16.0	0.50/15.5	0.57/15.0	0.64/14.5	0.71/14.0	0.78/13.5
19	7	0.00/19.6	0.08/19.6	0.14/19.6	0.21/19.6	0.28/19.1	0.35/18.6	0.42/18.1	0.49/17.6	0.56/17.1	0.63/16.6	0.70/16.1	0.77/15.6
21	7	0.00/20.3	0.07/20.3	0.13/20.3	0.20/20.3	0.27/20.3	0.34/20.3	0.41/20.3	0.48/20.3	0.55/20.3	0.62/20.3	0.69/20.3	0.76/20.3
20	7	0.00/13.7	0.05/13.1	0.10/13.1	0.16/13.1	0.23/12.6	0.30/12.1	0.37/11.6	0.44/11.1	0.51/10.6	0.58/10.1	0.65/9.6	0.72/9.1
9	7	0.00/11.6	0.05/11.6	0.11/11.6	0.17/11.6	0.24/11.1	0.31/10.6	0.38/10.1	0.45/9.6	0.52/9.1	0.59/8.6	0.66/8.1	0.73/7.6
13	7	0.00/13.4	0.07/13.4	0.13/13.4	0.20/13.4	0.27/12.9	0.34/12.4	0.41/11.9	0.48/11.4	0.55/10.9	0.62/10.4	0.69/9.9	0.76/9.4
15	7	0.00/15.3	0.08/15.3	0.14/15.3	0.21/15.3	0.28/14.8	0.35/14.3	0.42/13.8	0.49/13.3	0.56/12.8	0.63/12.3	0.70/11.8	0.77/11.3
17	7	0.00/17.5	0.09/17.5	0.15/17.5	0.22/17.5	0.29/17.0	0.36/16.5	0.43/16.0	0.50/15.5	0.57/15.0	0.64/14.5	0.71/14.0	0.78/13.5
19	7	0.00/19.6	0.08/19.6	0.14/19.6	0.21/19.6	0.28/19.1	0.35/18.6	0.42/18.1	0.49/17.6	0.56/17.1	0.63/16.6	0.70/16.1	0.77/15.6
21	7	0.00/20.3	0.07/20.3	0.13/20.3	0.20/20.3	0.27/20.3	0.34/20.3	0.41/20.3	0.48/20.3	0.55/20.3	0.62/20.3	0.69/20.3	0.76/20.3
25	7	0.00/13.7	0.05/13.1	0.10/13.1	0.16/13.1	0.23/12.6	0.30/12.1	0.37/11.6	0.44/11.1	0.51/10.6	0.58/10.1	0.65/9.6	0.72/9.1
9	7	0.00/11.6	0.05/11.6	0.11/11.6	0.17/11.6	0.24/11.1	0.31/10.6	0.38/10.1	0.45/9.6	0.52/9.1	0.59/8.6	0.66/8.1	0.73/7.6
13	7	0.00/13.4	0.07/13.4	0.13/13.4	0.20/13.4	0.27/12.9	0.34/12.4	0.41/11.9	0.48/11.4	0.55/10.9	0.62/10.4	0.69/9.9	0.76/9.4
15	7	0.00/15.3	0.08/15.3	0.14/15.3	0.21/15.3	0.28/14.8	0.35/14.3	0.42/13.8	0.49/13.3	0.56/12.8	0.63/12.3	0.70/11.8	0.77/11.3
17	7	0.00/17.5	0.09/17.5	0.15/17.5	0.22/17.5	0.29/17.0	0.36/16.5	0.43/16.0	0.50/15.5	0.57/15.0	0.64/14.5	0.71/14.0	0.78/13.5
19	7	0.00/19.6	0.08/19.6	0.14/19.6	0.21/19.6	0.28/19.1	0.35/18.6	0.42/18.1	0.49/17.6	0.56/17.1	0.63/16.6	0.70/16.1	0.77/15.6
21	7	0.00/20.3	0.07/20.3	0.13/20.3	0.20/20.3	0.27/20.3	0.34/20.3	0.41/20.3	0.48/20.3	0.55/20.3	0.62/20.3	0.69/20.3	0.76/20.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FILE 7

LONGESTED

WAS LAT VEL IN FPS/COUNTED MODUL PERIOD. T IN SECONDS

OF

HELICOPTER DECK WILL BE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM HL

[illegible]

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

LONG-TESTED
HMS VEA DISH IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
HELICOPTER DECK HULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM AL

V	T	SHIP HEADING ANGLE IN DEGREES													160
		0	15	30	45	60	75	90	105	120	135	150	165		
5	7	98/10.5	103/11.5	121/10.1	150/9.6	213/8.3	276/7.1	331/7.0	383/6.5	428/6.7	475/6.8	521/7.1	567/7.1	614/7.1	
	9	140/11.6	156/12.2	202/11.2	254/10.5	298/9.5	340/8.0	379/7.9	415/8.3	448/8.1	479/8.1	509/8.3	539/8.3	569/8.3	
	11	184/13.4	237/13.1	284/12.1	326/11.6	361/11.2	389/10.8	411/10.8	428/10.8	441/10.8	451/10.8	459/10.8	466/10.8	472/10.8	
	13	234/15.7	281/14.3	326/13.7	361/13.3	389/13.1	411/13.1	428/13.1	441/13.1	451/13.1	459/13.1	466/13.1	472/13.1	478/13.1	
	15	270/17.5	317/15.7	361/15.3	396/15.3	428/15.0	451/14.6	466/14.6	472/14.6	478/14.6	484/14.6	489/14.6	494/14.6	499/14.6	
	17	302/19.6	349/17.5	396/17.5	431/17.5	459/17.5	484/17.5	509/17.5	534/17.5	559/17.5	584/17.5	609/17.5	634/17.5	659/17.5	
10	7	86/13.7	89/12.8	104/12.5	140/11.2	190/9.5	251/7.7	329/7.0	426/6.3	521/6.7	614/6.8	701/7.1	781/7.1	854/7.1	
	9	155/14.6	170/13.6	186/13.4	211/13.1	237/12.5	261/11.6	284/11.2	306/10.8	325/9.8	343/9.5	361/9.2	378/9.4	395/9.4	
	11	218/15.3	221/15.0	231/14.3	243/13.4	257/12.5	272/11.6	287/11.2	299/10.8	309/9.8	318/9.5	326/9.2	334/9.4	342/9.4	
	13	244/17.0	246/16.5	252/16.1	258/15.3	264/14.3	269/13.4	274/12.6	279/12.1	284/11.6	289/11.2	294/11.2	299/11.2	304/11.2	
	15	257/18.5	258/18.0	260/17.5	262/17.0	264/16.1	266/15.0	268/14.3	270/13.7	272/13.0	274/12.6	276/12.1	278/12.1	280/12.1	
	17	261/19.6	261/19.6	262/19.6	262/19.6	262/19.6	262/19.6	262/19.6	262/19.6	262/19.6	262/19.6	262/19.6	262/19.6	262/19.6	
15	7	77/20.3	82/19.6	97/17.5	128/14.3	176/10.8	233/8.3	327/7.0	454/6.3	614/6.5	801/6.8	1014/7.1	1247/7.1	1501/7.3	
	9	152/20.3	157/19.6	171/17.5	201/13.3	266/12.1	341/10.5	431/9.0	534/8.3	641/8.1	754/8.3	871/8.3	994/8.3	1121/8.3	
	11	203/20.3	206/19.6	216/17.5	231/13.3	266/12.1	341/10.5	431/9.0	534/8.3	641/8.1	754/8.3	871/8.3	994/8.3	1121/8.3	
	13	230/20.3	232/19.6	238/17.5	253/13.3	266/12.1	341/10.5	431/9.0	534/8.3	641/8.1	754/8.3	871/8.3	994/8.3	1121/8.3	
	15	255/20.3	257/19.6	261/17.5	276/13.3	266/12.1	341/10.5	431/9.0	534/8.3	641/8.1	754/8.3	871/8.3	994/8.3	1121/8.3	
	17	251/20.3	251/19.6	252/17.5	252/13.3	252/12.1	252/10.5	252/9.0	252/8.3	252/7.5	252/7.1	252/6.8	252/6.5	252/6.2	
20	7	76/34.9	87/31.4	109/25.1	146/17.0	186/13.4	218/10.8	251/8.3	284/7.0	325/6.3	361/6.8	395/7.1	428/7.1	461/7.1	
	9	145/27.3	149/26.2	159/23.3	181/17.0	214/13.4	246/10.8	284/8.3	325/7.0	361/6.3	395/6.8	428/7.1	461/7.1	494/7.1	
	11	194/27.3	196/26.2	202/23.3	216/17.0	235/13.4	261/10.8	294/8.3	325/7.0	361/6.3	395/6.8	428/7.1	461/7.1	494/7.1	
	13	221/27.3	222/26.2	225/23.3	238/17.0	253/13.4	266/10.8	279/8.3	292/7.0	305/6.3	318/6.8	331/7.1	344/7.1	357/7.1	
	15	236/27.3	236/26.2	237/23.3	246/17.0	257/13.4	268/10.8	279/8.3	290/7.0	301/6.3	312/6.8	323/7.1	334/7.1	345/7.1	
	17	253/27.3	253/26.2	254/23.3	261/17.0	269/13.4	276/10.8	284/8.3	292/7.0	300/6.3	308/6.8	316/7.1	324/7.1	332/7.1	
25	7	74/34.9	85/31.4	107/25.1	144/17.0	184/13.4	216/10.8	249/8.3	282/7.0	323/6.3	359/6.8	395/7.1	431/7.1	467/7.1	
	9	140/27.3	144/26.2	154/23.3	176/17.0	210/13.4	242/10.8	280/8.3	321/7.0	357/6.3	393/6.8	429/7.1	465/7.1	501/7.1	
	11	190/27.3	192/26.2	198/23.3	212/17.0	231/13.4	257/10.8	294/8.3	325/7.0	361/6.3	395/6.8	429/7.1	465/7.1	501/7.1	
	13	215/27.3	216/26.2	217/23.3	226/17.0	237/13.4	248/10.8	259/8.3	270/7.0	281/6.3	292/6.8	303/7.1	314/7.1	325/7.1	
	15	234/27.3	234/26.2	235/23.3	243/17.0	253/13.4	264/10.8	275/8.3	286/7.0	297/6.3	308/6.8	319/7.1	330/7.1	341/7.1	
	17	236/34.9	236/33.1	235/29.9	237/26.2	237/21.7	237/16.5	237/11.2	237/6.3	237/1.0	237/1.0	237/1.0	237/1.0	237/1.0	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LUNGEDESTED
MMS VER VEL IN FPS/ENCOUNTERED MODAL PLWID, T, IN SECONDS
OF
HELICOPTER DECK BULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM BL

		SHIP HEADINGS ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.62/10.5	.066/10.5	.081/9.8	.112/9.0	.171/7.9	.261/6.4	.237/6.3	.282/5.7	.228/6.3	.168/6.4	.134/6.7	.117/7.0	.112/7.0
9	9	.100/11.6	.104/11.2	.114/10.5	.142/10.1	.161/9.7	.229/7.9	.211/7.9	.251/7.0	.239/7.1	.209/7.5	.186/7.7	.171/7.9	.167/7.9
11	11	.117/12.6	.121/12.1	.130/11.5	.146/11.2	.169/10.5	.194/10.1	.164/9.8	.214/8.7	.217/8.1	.206/8.3	.194/8.5	.180/8.7	.179/8.7
13	13	.120/13.4	.122/13.4	.129/13.1	.139/12.6	.153/12.1	.164/11.6	.143/11.6	.184/10.8	.191/10.5	.188/9.5	.184/9.2	.169/9.8	.166/11.2
15	15	.116/14.6	.117/14.3	.121/14.3	.129/14.0	.137/13.4	.146/13.1	.143/12.6	.160/12.1	.168/11.6	.159/11.2	.151/12.6	.151/12.6	.151/12.6
17	17	.108/15.7	.109/15.7	.112/15.7	.117/15.3	.123/15.0	.130/14.6	.124/14.0	.141/13.7	.148/13.1	.135/12.6	.132/12.6	.137/14.3	.137/14.3
19	19	.101/17.5	.101/17.5	.104/17.5	.107/17.5	.111/17.0	.116/16.5	.115/16.1	.125/15.3	.132/14.9	.135/14.6	.136/14.3	.137/14.3	.137/14.3
21	21	.094/19.6	.094/19.6	.096/19.6	.096/19.6	.102/19.0	.103/18.5	.105/18.0	.113/17.5	.119/17.0	.122/17.0	.123/16.5	.124/16.5	.124/16.5
10	7	.339/13.7	.042/12.8	.054/12.6	.060/10.8	.130/9.2	.221/7.0	.235/6.3	.288/5.7	.241/6.3	.181/6.4	.144/6.7	.126/7.0	.121/7.0
9	9	.070/14.3	.074/14.6	.087/13.1	.110/12.1	.145/10.5	.196/8.5	.207/7.9	.254/7.0	.255/7.1	.229/7.5	.206/7.7	.192/7.9	.188/7.9
11	11	.088/15.0	.091/15.0	.100/14.0	.117/12.5	.141/11.6	.173/10.8	.182/9.8	.221/8.7	.231/8.3	.225/8.3	.216/8.5	.209/8.7	.207/8.7
13	13	.093/16.1	.095/15.7	.102/15.3	.114/14.3	.131/13.4	.154/12.1	.160/11.6	.193/10.8	.203/9.5	.205/9.2	.203/9.2	.200/9.8	.200/9.8
15	15	.092/17.0	.093/17.0	.099/16.1	.108/15.3	.119/14.6	.134/13.7	.141/12.6	.164/12.1	.177/11.6	.182/11.2	.184/11.2	.185/11.2	.185/11.2
17	17	.088/18.5	.089/18.0	.093/17.5	.100/17.0	.109/16.1	.120/15.0	.126/14.0	.144/13.7	.156/13.4	.162/12.8	.165/12.6	.167/12.6	.167/12.6
19	19	.083/19.6	.084/19.6	.087/19.0	.093/18.5	.100/17.5	.109/16.5	.114/15.7	.124/15.3	.139/15.0	.145/14.6	.148/14.3	.150/14.3	.151/14.3
21	21	.078/21.7	.079/21.7	.082/20.9	.086/20.3	.092/19.6	.099/19.0	.104/18.0	.115/17.5	.124/17.0	.130/17.0	.134/16.5	.136/16.5	.136/16.5
15	7	.023/20.3	.025/19.6	.034/17.5	.058/14.3	.100/10.8	.186/7.7	.232/6.3	.299/5.7	.258/6.3	.195/6.4	.153/6.7	.131/7.0	.124/7.0
9	9	.047/20.3	.050/19.6	.061/17.5	.083/14.3	.118/11.6	.172/9.0	.207/7.9	.270/6.5	.273/7.0	.248/7.3	.224/7.5	.208/7.9	.203/7.9
11	11	.062/20.3	.065/19.6	.075/17.5	.096/14.3	.118/11.6	.154/11.2	.180/9.8	.230/8.7	.216/8.3	.243/8.3	.235/8.7	.228/8.7	.228/8.7
13	13	.069/20.3	.072/19.6	.079/17.5	.093/15.7	.112/14.3	.137/12.8	.158/11.6	.196/10.8	.216/9.5	.221/9.5	.221/9.2	.219/9.8	.219/9.8
15	15	.071/20.3	.073/19.6	.079/17.5	.095/17.5	.104/15.0	.123/14.0	.140/12.6	.176/12.1	.188/11.6	.196/10.5	.200/11.2	.201/10.8	.201/10.8
17	17	.070/20.3	.072/19.6	.076/17.5	.085/18.5	.096/17.0	.111/15.7	.125/14.0	.149/13.7	.165/13.4	.174/12.8	.178/12.6	.181/12.6	.182/12.6
19	19	.068/20.3	.069/19.6	.073/17.5	.080/20.3	.090/19.0	.101/17.5	.113/15.7	.132/15.3	.146/15.0	.154/14.6	.160/14.3	.163/14.3	.163/14.3
21	21	.065/20.3	.066/20.3	.070/21.3	.075/22.4	.083/20.9	.094/19.6	.103/18.0	.116/17.5	.131/17.0	.138/17.0	.144/16.5	.146/16.5	.147/16.5
20	7	.015/31.4	.016/29.9	.021/28.4	.036/19.0	.071/13.4	.151/8.5	.231/6.3	.314/5.7	.290/6.3	.216/6.4	.169/6.7	.143/7.0	.137/7.0
9	9	.030/27.3	.032/26.2	.040/23.3	.059/19.0	.095/13.4	.154/10.5	.206/7.9	.285/6.3	.298/6.7	.276/7.0	.251/7.5	.233/7.7	.227/7.7
11	11	.043/27.3	.045/26.2	.053/23.3	.070/19.0	.096/13.4	.136/11.6	.179/9.8	.242/8.5	.268/8.3	.260/8.3	.240/8.5	.233/8.7	.230/8.7
13	13	.050/27.3	.052/26.2	.060/23.3	.073/19.0	.096/13.4	.125/13.4	.157/11.6	.205/10.8	.232/9.5	.241/9.5	.242/9.2	.241/9.8	.240/9.8
15	15	.054/27.3	.056/26.2	.062/23.3	.073/19.0	.091/17.0	.113/14.6	.139/12.6	.177/11.6	.201/11.5	.213/10.5	.217/11.2	.219/10.8	.220/10.8
17	17	.055/27.3	.056/26.2	.062/23.3	.071/19.0	.085/18.5	.103/16.1	.124/14.0	.154/13.7	.175/13.4	.187/12.8	.193/12.6	.197/12.6	.197/12.6
19	19	.055/27.3	.056/26.2	.062/23.3	.071/19.0	.080/19.0	.095/18.0	.112/15.7	.136/15.3	.155/15.0	.162/14.6	.172/14.3	.177/14.3	.177/14.3
21	21	.054/27.3	.055/26.2	.059/23.3	.065/19.0	.075/21.7	.091/19.6	.102/18.0	.122/17.5	.138/17.0	.144/17.0	.154/16.5	.158/16.5	.159/16.5
25	7	.019/41.3	.019/39.3	.021/37.3	.040/24.2	.074/16.5	.134/11.6	.204/7.9	.304/6.3	.304/6.3	.238/6.8	.186/7.1	.156/7.1	.147/7.3
9	9	.027/34.9	.027/33.1	.037/29.9	.051/24.2	.090/15.5	.124/12.6	.179/9.8	.259/6.7	.259/6.7	.201/7.3	.156/7.5	.126/7.9	.126/7.9
11	11	.034/34.9	.034/33.1	.043/29.9	.056/24.2	.090/15.5	.114/11.6	.152/11.6	.217/10.1	.217/10.1	.204/9.5	.182/9.8	.172/9.0	.172/9.0
13	13	.034/34.9	.034/33.1	.043/29.9	.056/24.2	.090/15.5	.114/11.6	.152/11.6	.217/10.1	.217/10.1	.204/9.5	.182/9.8	.172/9.0	.172/9.0
15	15	.034/34.9	.034/33.1	.043/29.9	.056/24.2	.090/15.5	.114/11.6	.152/11.6	.217/10.1	.217/10.1	.204/9.5	.182/9.8	.172/9.0	.172/9.0
17	17	.034/34.9	.034/33.1	.043/29.9	.056/24.2	.090/15.5	.114/11.6	.152/11.6	.217/10.1	.217/10.1	.204/9.5	.182/9.8	.172/9.0	.172/9.0
19	19	.034/34.9	.034/33.1	.043/29.9	.056/24.2	.090/15.5	.114/11.6	.152/11.6	.217/10.1	.217/10.1	.204/9.5	.182/9.8	.172/9.0	.172/9.0
21	21	.034/34.9	.034/33.1	.043/29.9	.056/24.2	.090/15.5	.114/11.6	.152/11.6	.217/10.1	.217/10.1	.204/9.5	.182/9.8	.172/9.0	.172/9.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FIG 7

LOWESTESTED
AND VEH ACC IN SYSTEMICATED MODAL PARTID, T, IN SECONDS
OF
(ACC. A 100)
HELICOPTER DECA WILLSEYE - 42.0 FT FORWARD OF AP AND 30.0 FT FROM RL

V	T	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
5	7	12810.5	13411.1	1747.9	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
5	7	17611.2	18711.6	32110.5	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
11	9	17611.2	18711.6	32110.5	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
11	9	17611.2	18711.6	32110.5	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
13	15	16212.6	18812.6	26612.1	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
13	15	16212.6	18812.6	26612.1	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
15	13	16513.4	18913.1	14311.2	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
15	13	16513.4	18913.1	14311.2	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1
17	19	142613.4	15013.4	16013.1	1747.9	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6
17	19	142613.4	15013.4	16013.1	1747.9	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6
19	17	142613.4	15013.4	16013.1	1747.9	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6
21	21	114714.6	116714.6	122714.3	134714.6	150714.6	165714.6	180714.6	195714.6	210714.6	225714.6	240714.6	255714.6	270714.6	285714.6	300714.6	315714.6	330714.6	345714.6	360714.6	375714.6	390714.6	405714.6
10	9	55113.4	66112.8	94512.5	14311.5	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6
10	9	55113.4	66112.8	94512.5	14311.5	2507.9	4471.1	8437.5	10047.5	7421.5	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6	4327.1	3471.6	5367.7	5347.6
11	11	11114.6	11714.6	13913.7	16114.6	18314.6	20514.6	22714.6	24914.6	27114.6	29314.6	31514.6	33714.6										

NOTE: V IS SPLIT SPLIT IN KNOTS AND T IS MODAL HAVE PERIOD IN SECONDS.

SMUTCRESTED
RMS ROLL IN DEGREES/ENCOUNTERED MODAL PERIOD. T * IN SECONDS
OE

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	388/ 9.0	402/ 9.0	434/ 9.0	466/ 9.0	484/ 9.0	479/ 8.7	449/ 8.7	399/ 8.7	335/ 8.7	268/ 8.7	209/ 8.7	169/ 8.5	139/ 8.5
	9	435/ 9.2	456/ 9.2	506/ 9.2	561/ 9.2	601/ 9.0	617/ 9.0	605/ 9.0	568/ 9.0	511/ 9.0	444/ 9.0	381/ 9.0	336/ 9.0	314/ 9.0
	11	370/ 9.2	390/ 9.2	438/ 9.2	493/ 9.2	538/ 9.0	564/ 9.0	587/ 9.0	547/ 9.0	503/ 9.0	457/ 9.0	406/ 9.0	367/ 9.0	353/ 9.0
	13	296/ 9.2	313/ 9.2	354/ 9.2	401/ 9.2	441/ 9.2	467/ 9.0	475/ 9.0	464/ 9.0	437/ 9.0	398/ 9.0	359/ 9.0	326/ 9.0	318/ 9.0
	15	236/ 9.2	250/ 9.2	283/ 9.2	323/ 9.2	357/ 9.2	374/ 9.0	388/ 9.0	361/ 9.0	331/ 9.0	293/ 9.0	268/ 9.0	236/ 9.0	226/ 9.0
	17	191/ 9.2	202/ 9.2	229/ 9.2	262/ 9.2	290/ 9.2	309/ 9.2	317/ 9.0	313/ 9.0	297/ 9.0	273/ 9.0	248/ 9.0	228/ 9.0	211/ 9.0
	19	156/ 9.2	166/ 9.2	188/ 9.2	215/ 9.2	234/ 9.2	255/ 9.2	262/ 9.0	259/ 9.0	246/ 9.0	227/ 9.0	206/ 9.0	190/ 9.0	184/ 9.0
10	21	130/ 9.2	134/ 9.2	157/ 9.2	179/ 9.2	199/ 9.2	213/ 9.2	219/ 9.0	216/ 9.0	206/ 9.0	190/ 9.0	173/ 9.0	159/ 9.0	154/ 9.0
	7	316/ 9.5	340/ 9.5	395/ 9.5	449/ 9.5	473/ 9.5	472/ 9.0	442/ 9.0	386/ 9.0	310/ 9.0	226/ 8.7	152/ 8.7	108/ 8.5	89/ 8.1
	9	302/ 9.5	331/ 9.5	396/ 9.5	459/ 9.5	502/ 9.5	516/ 9.2	507/ 9.2	468/ 9.2	407/ 9.2	335/ 9.2	268/ 9.2	222/ 9.2	206/ 9.5
	11	249/ 9.5	275/ 9.5	332/ 9.5	391/ 9.5	437/ 9.5	462/ 9.2	466/ 9.2	447/ 9.2	409/ 9.2	360/ 9.5	311/ 9.5	263/ 9.8	239/ 9.8
	13	199/ 9.5	220/ 9.5	267/ 9.5	317/ 9.5	358/ 9.5	384/ 9.5	394/ 9.5	386/ 9.5	362/ 9.5	327/ 9.5	292/ 9.8	255/ 10.1	235/ 10.1
	15	160/ 9.5	176/ 9.5	214/ 9.5	255/ 9.5	290/ 9.5	314/ 9.5	325/ 9.5	321/ 9.5	305/ 9.5	279/ 9.8	252/ 9.8	232/ 10.1	224/ 10.1
	17	130/ 9.5	143/ 9.5	174/ 9.5	208/ 9.5	237/ 9.5	257/ 9.5	268/ 9.5	266/ 9.5	254/ 9.5	234/ 9.8	213/ 10.1	197/ 10.1	191/ 10.1
15	19	107/ 9.5	118/ 9.5	144/ 9.5	171/ 9.5	196/ 9.5	213/ 9.5	222/ 9.5	222/ 9.5	213/ 9.5	197/ 9.8	179/ 10.1	166/ 10.1	161/ 10.1
	21	90/ 9.5	99/ 9.5	120/ 9.5	143/ 9.5	164/ 9.5	179/ 9.5	187/ 9.5	187/ 9.5	179/ 9.5	166/ 9.8	152/ 10.1	141/ 10.1	136/ 10.1
	7	206/ 10.1	234/ 10.1	290/ 10.1	340/ 10.1	370/ 10.1	376/ 10.1	385/ 10.1	356/ 10.1	260/ 10.1	190/ 8.7	121/ 8.5	76/ 8.1	66/ 7.7
	9	200/ 10.1	228/ 10.1	286/ 10.1	340/ 10.1	377/ 10.1	393/ 10.1	395/ 10.1	356/ 10.1	260/ 10.1	190/ 8.7	121/ 8.5	76/ 8.1	66/ 7.7
	11	169/ 10.5	193/ 10.5	243/ 10.5	292/ 10.5	330/ 10.1	351/ 10.1	354/ 10.1	339/ 10.1	277/ 10.1	264/ 10.1	221/ 10.1	189/ 10.5	178/ 10.5
	13	139/ 10.5	158/ 10.5	193/ 10.5	240/ 10.5	274/ 10.1	296/ 10.1	304/ 10.1	298/ 10.1	277/ 10.1	248/ 10.1	216/ 10.5	192/ 10.8	184/ 10.8
	15	114/ 10.5	129/ 10.5	161/ 10.5	196/ 10.5	225/ 10.1	245/ 10.1	255/ 10.1	253/ 10.1	239/ 10.5	217/ 10.5	194/ 10.8	175/ 11.2	169/ 11.2
20	17	94/ 10.5	106/ 10.5	133/ 10.5	161/ 10.5	186/ 10.5	204/ 10.1	213/ 10.1	212/ 10.1	203/ 10.5	186/ 10.8	167/ 11.2	153/ 11.2	149/ 11.2
	19	78/ 10.5	88/ 10.5	110/ 10.5	134/ 10.5	155/ 10.1	170/ 10.1	179/ 10.5	179/ 10.5	172/ 10.5	158/ 10.8	143/ 11.2	131/ 11.2	127/ 11.2
	21	66/ 10.5	75/ 10.5	93/ 10.5	113/ 10.5	131/ 10.1	144/ 10.1	151/ 10.1	152/ 10.5	146/ 10.5	135/ 10.8	123/ 11.2	113/ 11.2	109/ 11.2
	7	163/ 13.4	201/ 13.4	267/ 13.4	321/ 13.4	356/ 13.4	368/ 9.0	356/ 9.0	321/ 8.7	266/ 8.7	196/ 8.7	119/ 8.7	63/ 8.1	51/ 7.7
	9	160/ 13.4	194/ 13.4	256/ 13.4	310/ 13.4	348/ 13.4	366/ 9.2	361/ 9.2	334/ 9.2	288/ 9.2	228/ 9.2	163/ 9.2	116/ 9.5	101/ 9.8
	11	138/ 13.4	165/ 13.4	216/ 13.4	265/ 13.4	302/ 13.4	323/ 9.2	327/ 9.2	312/ 9.5	281/ 9.5	238/ 9.8	192/ 10.5	157/ 10.8	145/ 11.2
	13	115/ 13.4	135/ 13.4	177/ 13.4	218/ 13.4	252/ 13.4	274/ 9.5	282/ 9.5	276/ 9.8	256/ 10.1	227/ 10.8	196/ 11.2	170/ 11.2	161/ 11.2
25	15	95/ 13.4	111/ 13.4	145/ 13.4	179/ 13.4	208/ 13.4	228/ 9.5	238/ 9.8	237/ 10.1	224/ 10.8	203/ 11.2	179/ 11.2	161/ 11.2	154/ 11.6
	17	80/ 13.4	92/ 13.4	119/ 13.4	148/ 13.4	172/ 13.4	190/ 13.4	200/ 9.8	207/ 10.8	182/ 11.2	176/ 11.2	158/ 11.2	139/ 11.6	131/ 11.6
	19	67/ 13.4	77/ 13.4	100/ 13.4	123/ 13.4	144/ 13.4	160/ 13.4	164/ 13.4	170/ 10.8	164/ 11.2	151/ 11.2	137/ 11.6	125/ 11.6	121/ 11.6
	21	57/ 13.4	66/ 13.4	84/ 13.4	104/ 13.4	122/ 13.4	135/ 13.4	143/ 13.4	145/ 10.8	140/ 11.2	130/ 11.2	118/ 11.6	109/ 11.6	105/ 11.6
	7	169/ 9.0	216/ 9.0	294/ 9.0	357/ 9.0	397/ 9.0	411/ 9.0	398/ 9.0	358/ 9.0	295/ 9.0	214/ 9.0	124/ 9.0	53/ 8.1	41/ 7.5
	9	155/ 16.5	192/ 16.5	258/ 9.2	314/ 9.2	351/ 9.2	367/ 9.2	360/ 9.2	331/ 9.2	281/ 9.2	216/ 9.2	146/ 9.2	93/ 9.5	78/ 9.8
	11	131/ 16.5	159/ 16.5	211/ 16.5	259/ 16.5	294/ 9.2	312/ 9.2	312/ 9.2	295/ 9.5	260/ 9.5	215/ 9.5	165/ 10.1	129/ 11.2	117/ 11.2
30	13	109/ 16.5	130/ 16.5	171/ 16.5	211/ 16.5	242/ 16.5	261/ 9.5	266/ 9.5	257/ 9.5	236/ 9.5	205/ 10.8	171/ 11.6	146/ 12.1	138/ 12.6
	15	90/ 16.5	107/ 16.5	140/ 16.5	172/ 16.5	199/ 16.5	217/ 16.5	225/ 9.5	221/ 9.5	207/ 10.8	186/ 11.6	162/ 12.6	144/ 12.6	137/ 12.6
	17	76/ 16.5	89/ 16.5	115/ 16.5	142/ 16.5	165/ 16.5	181/ 16.5	189/ 9.5	179/ 11.6	163/ 12.1	145/ 12.6	127/ 12.6	113/ 12.6	107/ 12.6
	19	64/ 16.5	74/ 16.5	96/ 16.5	119/ 16.5	138/ 16.5	153/ 16.5	160/ 16.5	161/ 9.8	154/ 12.1	141/ 12.6	127/ 12.6	113/ 12.6	107/ 12.6
	21	55/ 16.5	63/ 16.5	81/ 16.5	100/ 16.5	117/ 16.5	130/ 16.5	137/ 11.6	137/ 11.6	132/ 12.1	122/ 12.6	111/ 12.6	99/ 12.6	93/ 12.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FIG 7

SHORTCRESTED
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	0.47/10.1	0.49/10.1	0.53/9.8	0.59/9.8	0.65/8.3	0.70/6.8	0.74/6.7	0.75/6.7	0.74/6.7	0.71/6.7	0.67/6.7	0.64/6.8	0.62/6.8
	9	0.70/11.2	0.70/11.2	0.70/11.2	0.71/10.6	0.72/10.6	0.73/10.1	0.73/8.3	0.81/7.9	0.84/7.7	0.86/7.7	0.88/7.9	0.89/7.9	0.89/7.9
	11	0.79/12.1	0.79/12.1	0.76/12.1	0.74/12.1	0.71/11.6	0.68/11.2	0.65/10.8	0.62/10.4	0.59/10.1	0.57/9.8	0.54/9.8	0.51/9.8	0.48/9.8
	13	0.79/13.1	0.77/13.1	0.74/13.1	0.71/13.1	0.68/12.6	0.65/12.1	0.62/11.7	0.59/11.2	0.56/10.8	0.54/10.4	0.51/10.1	0.48/10.1	0.45/10.1
	15	0.73/14.3	0.72/14.3	0.69/14.0	0.66/14.0	0.63/13.4	0.59/13.1	0.56/12.6	0.53/12.1	0.50/11.6	0.47/11.2	0.44/10.8	0.41/10.4	0.38/10.1
	17	0.67/14.6	0.66/14.6	0.62/14.6	0.58/14.6	0.54/14.0	0.50/13.4	0.46/12.9	0.43/12.4	0.40/11.9	0.37/11.5	0.34/11.0	0.31/10.6	0.28/10.1
	19	0.60/15.7	0.59/15.7	0.56/15.7	0.52/15.7	0.48/15.0	0.44/14.3	0.40/13.7	0.37/13.1	0.34/12.6	0.31/12.1	0.28/11.6	0.25/11.2	0.22/10.7
10	7	0.43/13.4	0.44/13.4	0.48/13.4	0.54/13.4	0.61/10.8	0.67/6.7	0.71/6.4	0.74/6.5	0.74/6.5	0.72/6.7	0.69/6.7	0.66/6.8	0.65/6.8
	9	0.65/14.0	0.65/14.0	0.65/14.0	0.66/14.0	0.68/13.7	0.72/12.8	0.77/12.9	0.82/12.9	0.86/12.9	0.90/12.9	0.94/12.9	0.98/12.9	1.01/12.9
	11	0.74/14.6	0.74/14.6	0.72/14.6	0.69/14.6	0.65/14.0	0.61/13.4	0.57/12.9	0.53/12.4	0.50/11.9	0.47/11.5	0.44/11.0	0.41/10.6	0.38/10.1
	13	0.74/15.3	0.73/15.3	0.70/15.3	0.66/15.0	0.62/14.3	0.58/13.7	0.54/13.1	0.50/12.6	0.47/12.1	0.44/11.6	0.41/11.1	0.38/10.6	0.35/10.1
	15	0.70/16.1	0.68/16.1	0.65/16.1	0.61/15.7	0.57/15.0	0.53/14.3	0.49/13.7	0.45/13.1	0.42/12.6	0.39/12.1	0.36/11.6	0.33/11.1	0.30/10.6
	17	0.63/17.0	0.62/17.0	0.59/17.0	0.55/16.5	0.51/15.8	0.47/15.1	0.43/14.5	0.39/13.9	0.36/13.4	0.33/12.9	0.30/12.4	0.27/11.9	0.24/11.4
	19	0.57/17.5	0.56/17.5	0.53/17.5	0.49/17.0	0.45/16.3	0.41/15.6	0.37/15.0	0.33/14.4	0.30/13.9	0.27/13.4	0.24/12.9	0.21/12.4	0.18/11.9
15	7	0.39/17.5	0.40/17.5	0.44/17.5	0.50/17.5	0.57/14.3	0.63/14.3	0.68/14.3	0.71/14.3	0.74/14.3	0.77/14.3	0.80/14.3	0.83/14.3	0.86/14.3
	9	0.60/17.5	0.61/17.5	0.61/17.5	0.62/17.5	0.65/17.5	0.70/17.5	0.75/17.5	0.81/17.5	0.86/17.5	0.91/17.5	0.96/17.5	1.01/17.5	1.06/17.5
	11	0.69/19.6	0.69/19.6	0.67/19.6	0.64/19.6	0.60/19.0	0.56/18.4	0.52/17.8	0.48/17.2	0.45/16.7	0.42/16.1	0.39/15.6	0.36/15.0	0.33/14.5
	13	0.70/20.3	0.69/20.3	0.66/20.3	0.63/20.3	0.60/20.3	0.56/20.3	0.52/20.3	0.48/20.3	0.45/20.3	0.42/20.3	0.39/20.3	0.36/20.3	0.33/20.3
	15	0.65/20.3	0.64/20.3	0.62/20.3	0.59/20.3	0.56/20.3	0.52/20.3	0.48/20.3	0.45/20.3	0.42/20.3	0.39/20.3	0.36/20.3	0.33/20.3	0.30/20.3
	17	0.60/20.3	0.59/20.3	0.56/20.3	0.52/20.3	0.48/20.3	0.45/20.3	0.42/20.3	0.39/20.3	0.36/20.3	0.33/20.3	0.30/20.3	0.27/20.3	0.24/20.3
	19	0.54/20.3	0.53/20.3	0.51/20.3	0.47/20.3	0.43/20.3	0.40/20.3	0.37/20.3	0.34/20.3	0.31/20.3	0.28/20.3	0.25/20.3	0.22/20.3	0.19/20.3
20	7	0.37/13.4	0.38/13.4	0.42/13.4	0.47/13.4	0.54/13.4	0.60/13.4	0.65/13.4	0.68/13.4	0.71/13.4	0.74/13.4	0.77/13.4	0.80/13.4	0.83/13.4
	9	0.57/27.3	0.57/19.0	0.57/19.0	0.59/19.0	0.62/19.0	0.67/19.0	0.72/19.0	0.77/19.0	0.82/19.0	0.87/19.0	0.92/19.0	0.97/19.0	1.02/19.0
	11	0.65/23.3	0.65/23.3	0.63/23.3	0.62/23.3	0.62/23.3	0.63/23.3	0.64/23.3	0.65/23.3	0.66/23.3	0.67/23.3	0.68/23.3	0.69/23.3	0.70/23.3
	13	0.65/26.2	0.65/26.2	0.62/26.2	0.59/26.2	0.56/26.2	0.53/26.2	0.50/26.2	0.47/26.2	0.44/26.2	0.41/26.2	0.38/26.2	0.35/26.2	0.32/26.2
	15	0.62/26.2	0.61/26.2	0.58/26.2	0.55/26.2	0.52/26.2	0.49/26.2	0.46/26.2	0.43/26.2	0.40/26.2	0.37/26.2	0.34/26.2	0.31/26.2	0.28/26.2
	17	0.57/26.2	0.56/26.2	0.53/26.2	0.50/26.2	0.47/26.2	0.44/26.2	0.41/26.2	0.38/26.2	0.35/26.2	0.32/26.2	0.29/26.2	0.26/26.2	0.23/26.2
	19	0.51/26.2	0.50/26.2	0.48/26.2	0.44/26.2	0.41/26.2	0.38/26.2	0.35/26.2	0.32/26.2	0.29/26.2	0.26/26.2	0.23/26.2	0.20/26.2	0.17/26.2
25	7	0.37/16.5	0.38/16.5	0.41/16.5	0.46/16.5	0.52/16.5	0.58/16.5	0.62/16.5	0.65/16.5	0.68/16.5	0.71/16.5	0.74/16.5	0.77/16.5	0.80/16.5
	9	0.55/16.5	0.55/16.5	0.56/16.5	0.57/16.5	0.58/16.5	0.59/16.5	0.60/16.5	0.61/16.5	0.62/16.5	0.63/16.5	0.64/16.5	0.65/16.5	0.66/16.5
	11	0.63/34.9	0.62/34.9	0.61/34.9	0.59/34.9	0.56/34.9	0.53/34.9	0.50/34.9	0.47/34.9	0.44/34.9	0.41/34.9	0.38/34.9	0.35/34.9	0.32/34.9
	13	0.63/34.9	0.62/34.9	0.60/34.9	0.57/34.9	0.54/34.9	0.51/34.9	0.48/34.9	0.45/34.9	0.42/34.9	0.39/34.9	0.36/34.9	0.33/34.9	0.30/34.9
	15	0.59/33.1	0.58/33.1	0.56/33.1	0.53/33.1	0.50/33.1	0.47/33.1	0.44/33.1	0.41/33.1	0.38/33.1	0.35/33.1	0.32/33.1	0.29/33.1	0.26/33.1
	17	0.54/33.1	0.53/33.1	0.51/33.1	0.47/33.1	0.44/33.1	0.41/33.1	0.38/33.1	0.35/33.1	0.32/33.1	0.29/33.1	0.26/33.1	0.23/33.1	0.20/33.1
	19	0.49/33.1	0.48/33.1	0.46/33.1	0.43/33.1	0.40/33.1	0.37/33.1	0.34/33.1	0.31/33.1	0.28/33.1	0.25/33.1	0.22/33.1	0.19/33.1	0.16/33.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FIG 7

SHORTCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM BL

VT	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	9	11	13	15	17	19	21	23	25	27	29	31
10	7	9	11	13	15	17	19	21	23	25	27	29	31
15	7	9	11	13	15	17	19	21	23	25	27	29	31
20	7	9	11	13	15	17	19	21	23	25	27	29	31
25	7	9	11	13	15	17	19	21	23	25	27	29	31
30	7	9	11	13	15	17	19	21	23	25	27	29	31
35	7	9	11	13	15	17	19	21	23	25	27	29	31
40	7	9	11	13	15	17	19	21	23	25	27	29	31
45	7	9	11	13	15	17	19	21	23	25	27	29	31
50	7	9	11	13	15	17	19	21	23	25	27	29	31
55	7	9	11	13	15	17	19	21	23	25	27	29	31
60	7	9	11	13	15	17	19	21	23	25	27	29	31
65	7	9	11	13	15	17	19	21	23	25	27	29	31
70	7	9	11	13	15	17	19	21	23	25	27	29	31
75	7	9	11	13	15	17	19	21	23	25	27	29	31
80	7	9	11	13	15	17	19	21	23	25	27	29	31
85	7	9	11	13	15	17	19	21	23	25	27	29	31
90	7	9	11	13	15	17	19	21	23	25	27	29	31
95	7	9	11	13	15	17	19	21	23	25	27	29	31
100	7	9	11	13	15	17	19	21	23	25	27	29	31
105	7	9	11	13	15	17	19	21	23	25	27	29	31
110	7	9	11	13	15	17	19	21	23	25	27	29	31
115	7	9	11	13	15	17	19	21	23	25	27	29	31
120	7	9	11	13	15	17	19	21	23	25	27	29	31
125	7	9	11	13	15	17	19	21	23	25	27	29	31
130	7	9	11	13	15	17	19	21	23	25	27	29	31
135	7	9	11	13	15	17	19	21	23	25	27	29	31
140	7	9	11	13	15	17	19	21	23	25	27	29	31
145	7	9	11	13	15	17	19	21	23	25	27	29	31
150	7	9	11	13	15	17	19	21	23	25	27	29	31
155	7	9	11	13	15	17	19	21	23	25	27	29	31
160	7	9	11	13	15	17	19	21	23	25	27	29	31
165	7	9	11	13	15	17	19	21	23	25	27	29	31
170	7	9	11	13	15	17	19	21	23	25	27	29	31
175	7	9	11	13	15	17	19	21	23	25	27	29	31
180	7	9	11	13	15	17	19	21	23	25	27	29	31
185	7	9	11	13	15	17	19	21	23	25	27	29	31
190	7	9	11	13	15	17	19	21	23	25	27	29	31
195	7	9	11	13	15	17	19	21	23	25	27	29	31
200	7	9	11	13	15	17	19	21	23	25	27	29	31
205	7	9	11	13	15	17	19	21	23	25	27	29	31
210	7	9	11	13	15	17	19	21	23	25	27	29	31
215	7	9	11	13	15	17	19	21	23	25	27	29	31
220	7	9	11	13	15	17	19	21	23	25	27	29	31
225	7	9	11	13	15	17	19	21	23	25	27	29	31
230	7	9	11	13	15	17	19	21	23	25	27	29	31
235	7	9	11	13	15	17	19	21	23	25	27	29	31
240	7	9	11	13	15	17	19	21	23	25	27	29	31
245	7	9	11	13	15	17	19	21	23	25	27	29	31
250	7	9	11	13	15	17	19	21	23	25	27	29	31
255	7	9	11	13	15	17	19	21	23	25	27	29	31
260	7	9	11	13	15	17	19	21	23	25	27	29	31
265	7	9	11	13	15	17	19	21	23	25	27	29	31
270	7	9	11	13	15	17	19	21	23	25	27	29	31
275	7	9	11	13	15	17	19	21	23	25	27	29	31
280	7	9	11	13	15	17	19	21	23	25	27	29	31
285	7	9	11	13	15	17	19	21	23	25	27	29	31
290	7	9	11	13	15	17	19	21	23	25	27	29	31
295	7	9	11	13	15	17	19	21	23	25	27	29	31
300	7	9	11	13	15	17	19	21	23	25	27	29	31
305	7	9	11	13	15	17	19	21	23	25	27	29	31
310	7	9	11	13	15	17	19	21	23	25	27	29	31
315	7	9	11	13	15	17	19	21	23	25	27	29	31
320	7	9	11	13	15	17	19	21	23	25	27	29	31
325	7	9	11	13	15	17	19	21	23	25	27	29	31
330	7	9	11	13	15	17	19	21	23	25	27	29	31
335	7	9	11	13	15	17	19	21	23	25	27	29	31
340	7	9	11	13	15	17	19	21	23	25	27	29	31
345	7	9	11	13	15	17	19	21	23	25	27	29	31
350	7	9	11	13	15	17	19	21	23	25	27	29	31
355	7	9	11	13	15	17	19	21	23	25	27	29	31
360	7	9	11	13	15	17	19	21	23	25	27	29	31

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SMURTCHESTERED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
DE
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.026/9.2	.033/9.2	.048/9.0	.063/7.9	.075/7.5	.082/7.3	.085/7.3	.082/7.1	.074/7.0	.062/7.0	.046/7.0	.031/7.1	.023/7.1
	9	.040/10.8	.046/10.5	.061/9.5	.076/9.5	.089/9.2	.096/9.2	.098/9.2	.094/9.2	.085/9.2	.072/9.2	.056/9.2	.041/9.2	.034/9.2
	11	.047/12.6	.053/12.1	.066/11.6	.081/11.2	.093/11.2	.100/10.8	.102/10.8	.098/10.5	.090/10.5	.077/10.5	.062/10.1	.048/10.5	.042/10.5
	13	.050/14.0	.055/13.7	.067/13.4	.081/13.1	.092/12.8	.099/12.6	.101/12.6	.098/12.1	.090/12.1	.076/12.1	.064/11.6	.051/11.6	.046/11.6
	15	.050/15.3	.055/15.0	.066/15.0	.078/14.6	.089/14.3	.096/14.0	.098/14.0	.095/14.0	.087/13.7	.076/13.4	.063/13.4	.051/13.4	.047/13.1
	17	.049/16.5	.053/16.5	.063/16.1	.074/16.1	.084/15.7	.092/15.3	.094/15.3	.090/15.3	.083/15.0	.073/15.0	.061/15.0	.051/14.6	.047/14.6
	19	.046/17.5	.050/17.5	.059/17.5	.070/17.5	.079/17.0	.087/17.0	.089/17.0	.084/17.0	.078/16.5	.069/16.5	.058/16.5	.049/16.5	.045/16.5
10	7	.027/9.5	.034/9.5	.049/9.2	.064/9.0	.076/8.5	.083/8.3	.086/8.3	.083/8.1	.074/8.0	.062/8.1	.046/8.1	.031/8.1	.023/8.1
	9	.040/12.8	.047/12.8	.062/11.6	.077/11.6	.089/11.2	.096/11.2	.098/11.2	.094/11.2	.085/11.2	.072/11.2	.056/11.2	.041/8.5	.034/8.5
	11	.048/14.3	.054/14.3	.067/13.4	.081/13.4	.092/13.1	.099/12.8	.101/12.8	.098/12.6	.090/12.6	.077/12.1	.062/12.1	.048/11.6	.042/11.6
	13	.051/15.3	.056/15.3	.068/14.6	.082/14.6	.093/14.3	.099/14.0	.101/14.0	.098/14.0	.090/14.0	.077/14.0	.062/13.4	.048/13.4	.042/13.4
	15	.051/16.5	.055/16.5	.066/15.7	.079/15.7	.089/15.3	.096/15.0	.098/15.0	.095/15.0	.087/14.6	.076/14.6	.063/14.6	.051/14.6	.047/14.6
	17	.049/17.5	.053/17.5	.063/17.5	.074/17.5	.084/17.0	.092/16.5	.094/16.5	.090/16.5	.083/16.5	.073/16.5	.061/16.5	.051/16.5	.047/16.5
	19	.047/19.0	.050/19.0	.060/18.5	.070/18.5	.079/17.5	.086/17.5	.089/17.5	.084/17.0	.078/17.0	.069/17.0	.058/17.5	.049/17.5	.045/17.0
15	7	.029/14.3	.036/14.3	.051/14.3	.066/14.3	.077/14.3	.083/14.3	.086/14.3	.083/14.0	.075/14.0	.062/14.3	.046/14.3	.031/14.3	.022/14.3
	9	.042/14.6	.048/14.6	.063/14.3	.078/14.3	.089/14.0	.096/14.0	.098/14.0	.094/14.0	.085/14.0	.072/14.0	.056/14.0	.041/8.7	.033/8.7
	11	.047/15.3	.053/15.3	.067/15.3	.081/15.3	.092/15.0	.099/14.6	.101/14.6	.098/14.6	.090/14.6	.077/14.6	.062/14.0	.048/10.5	.040/10.5
	13	.052/17.5	.057/17.5	.069/17.5	.082/17.5	.093/17.0	.099/16.5	.101/16.5	.098/16.5	.090/16.5	.077/16.5	.062/16.5	.048/12.1	.042/12.1
	15	.052/19.6	.056/19.6	.067/19.6	.079/19.6	.089/19.0	.096/18.5	.098/18.5	.095/18.5	.087/18.5	.076/18.5	.063/18.5	.051/18.5	.047/18.5
	17	.050/19.6	.054/19.6	.064/19.6	.075/19.6	.085/19.0	.092/18.5	.094/18.5	.090/18.5	.083/18.5	.073/18.5	.061/18.5	.051/18.5	.047/18.5
	19	.047/20.3	.051/20.3	.060/19.6	.070/19.6	.079/18.5	.086/18.5	.089/18.5	.084/18.0	.078/18.0	.069/18.0	.058/17.5	.049/17.5	.045/17.0
20	7	.032/13.4	.039/13.4	.054/13.4	.069/13.4	.080/13.4	.087/13.4	.088/13.4	.084/8.7	.075/8.5	.062/8.7	.046/8.7	.030/8.7	.022/8.7
	9	.045/19.0	.052/19.0	.066/19.0	.081/19.0	.093/19.0	.100/19.0	.103/19.0	.099/19.0	.090/19.0	.077/19.0	.062/19.0	.047/19.0	.033/19.0
	11	.053/19.0	.059/19.0	.072/19.0	.086/19.0	.097/19.0	.104/19.0	.106/19.0	.102/19.0	.093/19.0	.080/19.0	.065/19.0	.050/19.0	.043/19.0
	13	.055/23.3	.060/23.3	.072/23.3	.085/23.3	.095/23.3	.102/23.3	.104/23.3	.100/23.3	.091/23.3	.078/23.3	.064/23.3	.049/23.3	.043/23.3
	15	.055/23.3	.059/23.3	.070/23.3	.082/23.3	.091/23.3	.098/23.3	.100/23.3	.096/23.3	.087/23.3	.074/23.3	.060/23.3	.045/23.3	.043/23.3
	17	.053/23.3	.057/23.3	.066/23.3	.077/23.3	.086/23.3	.092/23.3	.094/23.3	.090/23.3	.083/23.3	.073/23.3	.060/23.3	.045/23.3	.043/23.3
	19	.050/23.3	.054/23.3	.062/23.3	.072/23.3	.080/23.3	.086/23.3	.088/23.3	.084/23.3	.077/23.3	.067/23.3	.056/23.3	.047/23.3	.043/23.3
25	7	.035/16.5	.043/16.5	.057/16.5	.072/16.5	.083/16.5	.090/16.5	.091/16.5	.086/16.5	.076/16.5	.062/16.5	.046/16.5	.030/16.5	.021/16.5
	9	.048/16.5	.055/16.5	.070/16.5	.085/16.5	.096/16.5	.103/16.5	.106/16.5	.102/16.5	.093/16.5	.080/16.5	.065/16.5	.050/16.5	.039/16.5
	11	.055/16.5	.061/16.5	.075/16.5	.089/16.5	.100/16.5	.107/16.5	.109/16.5	.105/16.5	.096/16.5	.083/16.5	.068/16.5	.053/16.5	.046/16.5
	13	.058/24.2	.063/24.2	.073/24.2	.084/24.2	.094/24.2	.101/24.2	.103/24.2	.099/24.2	.090/24.2	.077/24.2	.062/24.2	.047/24.2	.042/24.2
	15	.058/24.2	.062/24.2	.073/24.2	.084/24.2	.094/24.2	.101/24.2	.103/24.2	.099/24.2	.090/24.2	.077/24.2	.062/24.2	.047/24.2	.042/24.2
	17	.056/24.2	.060/24.2	.069/24.2	.079/24.2	.088/24.2	.095/24.2	.097/24.2	.093/24.2	.084/24.2	.071/24.2	.056/24.2	.045/24.2	.041/24.2
	19	.053/24.2	.057/24.2	.065/24.2	.074/24.2	.082/24.2	.089/24.2	.091/24.2	.087/24.2	.078/24.2	.065/24.2	.052/24.2	.043/24.2	.040/24.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FIG 7

SHIPWITCHED
RMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
(ACC. X 100)
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM BL

VT	0	SHIP HEADING ANGLE IN DEGREES										180				
		0	15	30	45	60	75	90	105	120	135	150	165	180	180	180
5	7	.060/9.2	.087/9.0	.137/7.1	.165/7.0	.224/5.8	.250/5.7	.253/5.7	.253/5.7	.230/6.5	.194/6.5	.146/6.5	.097/6.7	.069/6.8		
9	7	.079/9.5	.099/9.2	.140/9.2	.162/9.2	.217/9.2	.240/9.2	.240/9.2	.242/9.2	.221/7.9	.184/7.9	.146/7.7	.104/7.7	.084/7.9		
11	9	.084/11.6	.099/11.2	.132/10.5	.167/9.5	.217/9.5	.240/9.5	.240/9.5	.242/9.5	.221/9.5	.184/9.5	.146/9.5	.104/9.8	.089/9.8		
13	13	.081/12.8	.093/12.6	.120/12.1	.149/11.6	.174/11.2	.191/10.8	.198/10.8	.193/10.5	.178/10.5	.154/10.5	.126/10.5	.099/10.5	.087/10.5		
15	15	.074/14.0	.084/13.7	.106/13.4	.131/12.8	.153/12.6	.167/12.6	.173/12.1	.169/12.1	.157/11.6	.137/11.6	.113/11.6	.091/11.6	.081/11.6		
17	17	.067/15.0	.075/14.6	.094/14.3	.115/14.0	.133/13.7	.145/13.4	.151/13.4	.148/13.1	.137/13.1	.120/12.8	.100/12.8	.082/12.8	.074/12.8		
19	19	.060/15.7	.067/15.7	.083/15.3	.101/15.0	.117/15.0	.127/15.0	.132/14.3	.129/14.3	.120/14.0	.106/14.0	.089/14.0	.073/14.3	.067/14.3		
21	21	.054/17.0	.060/16.5	.073/16.1	.089/15.1	.103/15.7	.112/15.3	.116/15.3	.114/15.3	.106/15.0	.093/15.0	.079/15.0	.066/14.6	.060/14.6		
10	7	.056/9.5	.084/9.5	.134/7.5	.164/7.3	.224/7.0	.251/7.0	.251/7.0	.251/7.0	.235/6.7	.198/6.7	.151/6.7	.102/6.7	.075/7.0		
9	9	.072/11.6	.091/9.5	.135/9.5	.174/9.2	.215/9.2	.240/9.2	.240/9.2	.246/9.2	.226/7.9	.194/7.9	.152/7.9	.111/8.1	.091/8.1		
11	11	.076/13.4	.092/13.1	.126/11.6	.163/10.5	.195/9.8	.218/9.8	.225/9.5	.222/9.5	.205/9.5	.178/9.5	.144/9.8	.111/9.8	.095/10.1		
13	13	.073/14.3	.086/14.3	.114/13.4	.145/12.8	.171/12.1	.190/11.6	.198/11.2	.193/10.8	.182/10.8	.159/10.8	.131/10.8	.104/10.8	.092/11.2		
15	15	.068/15.3	.079/15.3	.101/14.6	.127/14.0	.150/13.4	.166/12.8	.173/12.6	.171/12.1	.160/12.1	.141/11.6	.117/11.6	.096/11.6	.086/11.6		
17	17	.062/16.5	.070/16.1	.089/15.7	.111/15.0	.131/14.6	.145/14.0	.151/13.7	.149/13.4	.140/13.1	.124/13.1	.104/12.8	.086/12.8	.076/12.8		
19	19	.055/17.5	.062/17.0	.079/16.5	.098/15.7	.114/15.3	.126/15.0	.132/15.0	.131/15.0	.122/14.3	.109/14.3	.092/14.3	.077/14.3	.070/14.3		
21	21	.050/18.0	.056/17.5	.070/17.5	.086/16.5	.100/16.5	.111/15.7	.116/15.7	.115/15.3	.108/15.0	.096/15.0	.082/15.0	.069/15.0	.063/14.6		
15	7	.051/14.3	.080/8.5	.131/8.1	.162/7.9	.224/7.5	.252/7.3	.254/7.0	.260/6.7	.239/6.7	.203/6.5	.156/6.7	.106/6.7	.080/7.0		
9	9	.064/14.3	.082/13.4	.127/13.4	.173/9.0	.214/9.0	.240/8.7	.252/8.5	.249/8.3	.231/8.3	.199/8.1	.159/8.1	.118/8.1	.098/8.3		
11	11	.068/15.0	.085/14.6	.121/12.1	.159/11.6	.192/11.2	.215/9.5	.226/9.5	.224/9.5	.209/9.2	.183/9.2	.149/9.2	.117/9.2	.102/9.2		
13	13	.066/17.5	.079/17.5	.109/14.6	.141/12.6	.169/12.1	.189/11.6	.199/11.2	.198/11.2	.185/11.2	.163/10.8	.136/10.8	.109/10.8	.098/11.2		
15	15	.062/17.5	.072/17.5	.096/17.5	.123/16.5	.147/14.3	.163/13.8	.173/12.6	.173/12.6	.162/12.1	.144/12.1	.121/12.1	.100/12.1	.090/12.1		
17	17	.056/17.5	.065/17.5	.085/17.5	.108/15.7	.129/15.3	.143/14.6	.151/14.3	.151/14.3	.142/13.4	.127/13.1	.108/13.1	.090/12.8	.082/12.8		
19	19	.051/19.6	.054/19.6	.075/19.6	.093/17.5	.112/15.7	.125/15.3	.132/15.3	.132/15.3	.124/14.6	.111/14.3	.095/14.3	.080/14.3	.074/14.3		
21	21	.046/19.6	.052/19.6	.067/19.6	.083/17.5	.099/17.5	.110/17.5	.116/15.7	.116/15.7	.109/15.3	.098/15.0	.084/15.0	.071/15.0	.066/15.0		
20	7	.047/13.4	.077/13.4	.129/13.4	.181/8.7	.224/8.7	.253/6.3	.267/6.3	.263/6.3	.242/6.5	.207/6.5	.160/6.5	.110/6.7	.083/7.0		
9	9	.059/19.0	.082/13.4	.127/13.4	.173/9.2	.213/9.2	.241/9.0	.254/9.0	.253/9.0	.235/8.5	.205/8.3	.164/8.1	.123/8.1	.103/8.3		
11	11	.063/19.0	.080/19.0	.117/19.0	.156/13.4	.190/9.8	.215/9.8	.228/9.5	.227/9.5	.213/9.5	.184/9.2	.155/9.2	.122/9.2	.107/9.2		
13	13	.061/19.0	.075/19.0	.105/19.0	.138/14.0	.167/13.4	.189/13.4	.200/10.8	.200/10.8	.189/10.8	.168/10.5	.140/10.5	.114/10.5	.102/10.5		
15	15	.057/19.0	.068/19.0	.093/19.0	.121/14.0	.145/14.0	.167/13.4	.174/13.4	.174/13.4	.165/12.1	.148/12.1	.125/12.1	.104/12.1	.094/12.1		
17	17	.053/23.3	.062/23.3	.082/19.0	.106/14.0	.127/15.0	.143/14.0	.151/14.0	.152/14.0	.144/13.4	.130/13.4	.111/13.1	.093/13.1	.086/13.1		
19	19	.049/23.3	.055/23.3	.073/19.0	.093/19.0	.111/19.0	.129/15.3	.132/15.3	.133/15.0	.126/14.6	.114/14.6	.098/14.6	.083/14.3	.077/14.3		
21	21	.043/23.3	.050/23.3	.064/23.3	.082/19.0	.097/19.0	.109/19.0	.116/15.7	.117/15.7	.111/15.3	.100/15.3	.087/15.0	.074/15.0	.069/15.0		
25	7	.044/16.5	.075/16.5	.128/16.5	.180/9.2	.224/9.5	.253/6.3	.269/6.3	.266/6.3	.246/6.5	.211/6.5	.164/6.5	.114/6.7	.087/7.0		
9	9	.054/16.5	.078/16.5	.124/16.5	.171/15.3	.212/15.3	.242/15.3	.257/15.3	.256/9.2	.240/7.9	.209/7.9	.169/8.1	.128/8.1	.108/8.3		
11	11	.057/16.5	.070/16.5	.113/16.5	.154/15.3	.194/15.3	.216/15.3	.230/9.8	.230/9.8	.218/9.5	.193/9.5	.160/9.2	.127/9.2	.112/9.2		
13	13	.056/16.5	.070/16.5	.101/16.5	.142/15.3	.182/15.3	.204/15.3	.216/15.3	.216/15.3	.202/10.8	.172/10.5	.145/10.5	.119/10.5	.107/10.5		
15	15	.053/24.2	.064/16.5	.090/16.5	.131/15.3	.171/15.3	.194/15.3	.204/15.3	.204/15.3	.192/12.1	.161/12.1	.129/12.1	.108/12.1	.094/12.1		
17	17	.049/24.2	.058/24.2	.074/16.5	.115/15.3	.155/15.3	.178/15.3	.194/15.3	.194/15.3	.182/13.4	.151/13.4	.124/13.4	.100/13.4	.086/13.4		
19	19	.045/24.2	.053/24.2	.070/16.5	.110/15.3	.149/15.3	.171/15.3	.187/15.3	.187/15.3	.176/15.3	.146/15.3	.120/15.3	.096/15.3	.079/15.0		
21	21	.041/24.2	.048/24.2	.063/24.2	.109/15.3	.148/15.3	.169/15.3	.186/15.3	.186/15.3	.173/16.5	.142/16.5	.116/16.5	.092/16.5	.071/15.0		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM BL

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
7	0	.047/10.5	.059/9.0	.084/8.3	.110/7.5	.132/7.5	.147/7.5	.154/7.3	.152/7.3	.141/7.1	.122/7.1	.099/7.1	.077/7.3	.066/7.5
9	0	.095/12.1	.103/12.1	.122/11.6	.144/11.2	.163/10.5	.179/9.8	.185/9.2	.183/9.2	.172/9.0	.155/9.0	.134/9.0	.116/9.0	.109/9.0
11	0	.140/13.4	.145/13.4	.158/13.1	.175/12.8	.191/12.6	.207/12.1	.222/11.6	.205/11.2	.196/11.2	.182/10.8	.167/10.8	.154/10.8	.149/10.8
13	0	.172/15.3	.176/15.3	.183/15.0	.197/14.3	.209/14.0	.221/13.7	.232/13.4	.205/12.8	.214/12.6	.192/12.6	.183/12.6	.170/12.6	.160/12.6
15	0	.193/17.0	.197/17.0	.204/16.5	.213/16.1	.222/15.7	.229/15.3	.232/15.0	.231/14.6	.226/14.6	.210/14.3	.204/14.3	.201/14.3	.201/14.3
17	0	.209/19.0	.211/19.0	.216/18.5	.223/18.0	.230/17.5	.235/17.0	.237/16.5	.236/16.5	.233/16.5	.227/16.5	.221/16.5	.217/16.5	.215/16.5
19	0	.219/19.6	.221/19.6	.225/19.6	.230/19.6	.235/19.6	.239/19.6	.241/19.0	.240/18.5	.237/18.0	.234/17.5	.229/17.5	.224/17.0	.224/17.0
21	0	.228/22.4	.229/22.4	.232/22.4	.236/22.1	.240/21.7	.243/20.9	.244/20.9	.244/20.3	.242/20.3	.238/19.6	.235/19.6	.233/19.6	.232/19.6
10	0	.046/12.8	.058/12.8	.083/9.5	.110/7.5	.134/7.5	.150/7.3	.159/7.3	.158/7.1	.148/7.0	.131/7.0	.109/7.0	.088/7.0	.078/7.0
9	0	.093/14.6	.101/14.6	.120/14.6	.144/11.6	.165/10.5	.181/9.8	.190/9.5	.189/9.2	.180/9.0	.165/9.0	.147/9.0	.130/9.0	.124/9.0
11	0	.137/15.7	.142/15.7	.156/15.3	.174/15.3	.191/14.6	.208/13.7	.224/13.4	.210/13.2	.203/13.2	.191/12.8	.177/12.8	.165/12.8	.161/12.8
13	0	.169/17.0	.173/17.0	.183/17.0	.196/16.5	.208/16.0	.224/15.7	.239/15.3	.224/15.0	.215/14.6	.204/14.3	.192/14.3	.181/14.3	.178/14.3
15	0	.192/19.5	.195/19.5	.202/19.5	.211/19.0	.221/18.5	.229/18.0	.233/17.5	.233/17.0	.229/17.0	.225/16.5	.221/16.5	.217/16.5	.216/16.5
17	0	.207/20.3	.208/20.3	.214/19.6	.221/19.6	.228/19.0	.234/18.5	.238/18.0	.238/17.5	.235/17.0	.230/16.5	.225/16.5	.221/16.5	.219/16.5
19	0	.217/21.7	.218/21.7	.222/21.7	.228/21.7	.234/21.7	.238/21.7	.241/21.0	.241/20.5	.239/20.5	.236/20.5	.232/20.5	.229/20.5	.228/20.5
21	0	.226/26.2	.227/26.2	.230/26.2	.234/26.2	.238/26.2	.242/26.2	.244/26.2	.244/26.2	.243/26.2	.240/26.2	.237/26.2	.235/26.2	.234/26.2
15	0	.045/14.3	.057/14.3	.082/14.3	.110/11.5	.136/11.5	.154/11.5	.164/11.5	.165/11.5	.157/11.5	.141/11.5	.120/11.5	.100/11.5	.091/11.5
9	0	.091/17.5	.099/17.5	.119/17.5	.143/17.5	.167/17.5	.185/17.5	.196/17.5	.198/17.5	.192/17.5	.180/17.5	.164/17.5	.150/17.5	.144/17.5
11	0	.134/20.3	.139/20.3	.153/20.3	.172/20.3	.191/20.3	.206/20.3	.221/20.3	.217/20.3	.213/20.3	.203/20.3	.192/20.3	.182/20.3	.179/20.3
13	0	.166/22.4	.170/22.4	.180/22.4	.194/22.4	.209/22.4	.224/22.4	.239/22.4	.234/22.4	.230/22.4	.221/22.4	.210/22.4	.204/22.4	.201/22.4
15	0	.189/24.9	.192/24.9	.199/24.9	.209/24.9	.219/24.9	.229/24.9	.239/24.9	.234/24.9	.230/24.9	.221/24.9	.210/24.9	.204/24.9	.201/24.9
17	0	.204/27.4	.206/27.4	.211/27.4	.219/27.4	.227/27.4	.234/27.4	.239/27.4	.234/27.4	.230/27.4	.221/27.4	.210/27.4	.204/27.4	.201/27.4
19	0	.215/29.2	.216/29.2	.220/29.2	.226/29.2	.233/29.2	.238/29.2	.242/29.2	.242/29.2	.242/29.2	.240/29.2	.237/29.2	.235/29.2	.234/29.2
21	0	.224/33.1	.225/33.1	.228/33.1	.233/33.1	.237/33.1	.242/33.1	.245/33.1	.245/33.1	.245/33.1	.243/33.1	.240/33.1	.238/33.1	.238/33.1
20	0	.044/13.4	.056/13.4	.082/13.4	.111/13.4	.137/13.4	.157/13.4	.163/13.4	.172/13.4	.165/13.4	.150/13.4	.130/13.4	.111/13.4	.102/13.4
9	0	.089/19.0	.097/19.0	.117/19.0	.143/19.0	.168/19.0	.189/19.0	.200/19.0	.208/19.0	.206/19.0	.197/19.0	.184/19.0	.172/19.0	.167/19.0
11	0	.131/23.3	.136/23.3	.151/23.3	.171/23.3	.191/23.3	.208/23.3	.220/23.3	.226/23.3	.225/23.3	.219/23.3	.211/23.3	.204/23.3	.201/23.3
13	0	.163/26.2	.167/26.2	.177/26.2	.192/26.2	.207/26.2	.221/26.2	.234/26.2	.239/26.2	.238/26.2	.231/26.2	.225/26.2	.220/26.2	.218/26.2
15	0	.186/28.2	.189/28.2	.197/28.2	.208/28.2	.219/28.2	.229/28.2	.239/28.2	.244/28.2	.244/28.2	.238/28.2	.231/28.2	.225/28.2	.223/28.2
17	0	.201/31.3	.204/31.3	.209/31.3	.218/31.3	.226/31.3	.235/31.3	.240/31.3	.244/31.3	.244/31.3	.238/31.3	.231/31.3	.225/31.3	.223/31.3
19	0	.213/33.1	.214/33.1	.219/33.1	.225/33.1	.232/33.1	.238/33.1	.243/33.1	.245/33.1	.245/33.1	.240/33.1	.233/33.1	.227/33.1	.226/33.1
21	0	.222/37.3	.223/37.3	.227/37.3	.231/37.3	.237/37.3	.242/37.3	.245/37.3	.245/37.3	.245/37.3	.240/37.3	.233/37.3	.227/37.3	.226/37.3
25	0	.043/16.5	.055/16.5	.081/16.5	.111/16.5	.139/16.5	.150/16.5	.173/16.5	.177/16.5	.171/16.5	.156/16.5	.137/16.5	.117/16.5	.109/16.5
9	0	.087/18.5	.095/18.5	.116/18.5	.143/18.5	.170/18.5	.193/18.5	.210/18.5	.218/18.5	.219/18.5	.212/18.5	.202/18.5	.192/18.5	.188/18.5
11	0	.129/23.3	.134/23.3	.149/23.3	.171/23.3	.191/23.3	.208/23.3	.220/23.3	.226/23.3	.225/23.3	.219/23.3	.211/23.3	.204/23.3	.201/23.3
13	0	.161/26.2	.165/26.2	.176/26.2	.192/26.2	.207/26.2	.221/26.2	.234/26.2	.239/26.2	.238/26.2	.231/26.2	.225/26.2	.220/26.2	.218/26.2
15	0	.184/28.2	.187/28.2	.195/28.2	.207/28.2	.219/28.2	.229/28.2	.239/28.2	.244/28.2	.244/28.2	.238/28.2	.231/28.2	.225/28.2	.223/28.2
17	0	.200/31.3	.202/31.3	.208/31.3	.217/31.3	.226/31.3	.235/31.3	.240/31.3	.244/31.3	.244/31.3	.238/31.3	.231/31.3	.225/31.3	.223/31.3
19	0	.212/33.1	.213/33.1	.218/33.1	.224/33.1	.231/33.1	.237/33.1	.242/33.1	.245/33.1	.245/33.1	.240/33.1	.233/33.1	.227/33.1	.226/33.1
21	0	.221/37.3	.222/37.3	.226/37.3	.231/37.3	.237/37.3	.242/37.3	.245/37.3	.245/37.3	.245/37.3	.240/37.3	.233/37.3	.227/37.3	.226/37.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORT-CRESTED
RMS VER VEL IN FPS/COUNTERWEIGHT MODAL PERIOD, T, IN SECONDS
OF
CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	.034/ 8.7	.048/ 8.7	.075/ 7.3	.103/ 7.0	.127/ 6.7	.144/ 6.5	.152/ 6.5	.151/ 6.5	.141/ 6.5	.123/ 6.5	.100/ 6.5	.077/ 6.7	.066/ 7.0			
9	9	.055/11.6	.083/11.6	.083/11.6	.106/ 9.2	.127/ 8.0	.142/ 8.5	.149/ 8.5	.149/ 8.5	.141/ 8.3	.126/ 8.3	.110/ 8.5	.093/ 8.5	.086/ 8.5			
11	11	.070/13.1	.076/12.8	.089/12.8	.106/12.1	.122/11.2	.134/10.8	.141/10.5	.142/10.1	.129/11.6	.126/10.1	.114/10.1	.103/10.1	.099/10.1			
13	13	.078/14.3	.082/14.3	.091/14.0	.103/13.4	.116/12.8	.126/12.6	.131/12.1	.132/11.6	.120/12.6	.116/12.8	.111/12.6	.106/12.6	.104/12.6			
15	15	.081/15.7	.083/15.7	.090/15.3	.103/14.9	.116/14.0	.126/13.7	.131/13.4	.132/13.1	.120/14.6	.116/14.6	.111/14.3	.106/14.3	.104/14.3			
17	17	.080/17.5	.082/17.0	.087/17.0	.094/16.5	.101/15.7	.107/15.3	.111/15.0	.113/14.6	.112/14.6	.109/14.3	.105/14.3	.102/14.3	.101/14.3			
19	19	.078/19.0	.079/19.0	.083/18.5	.088/18.0	.094/17.5	.099/17.0	.103/17.0	.104/16.5	.104/16.5	.102/16.5	.099/16.5	.097/16.5	.096/16.5			
21	21	.075/19.6	.076/19.6	.079/19.6	.083/19.5	.088/19.0	.092/18.5	.095/18.0	.097/18.0	.097/17.5	.095/17.0	.094/17.0	.092/16.5	.091/16.5			
10	7	.029/ 9.5	.044/ 9.5	.072/ 7.3	.102/ 7.0	.129/ 6.7	.147/ 6.3	.150/ 6.3	.152/ 6.3	.155/ 6.3	.139/ 6.3	.117/ 6.3	.096/ 6.5	.085/ 6.5			
9	9	.047/14.3	.056/14.3	.078/11.6	.103/ 9.2	.129/ 8.0	.147/ 8.5	.157/ 8.1	.161/ 8.1	.157/ 8.1	.146/ 8.1	.131/ 8.1	.117/ 8.3	.111/ 8.3			
11	11	.060/15.3	.066/15.3	.081/15.0	.101/12.5	.120/11.6	.136/10.8	.147/10.5	.152/10.1	.150/ 9.5	.144/ 9.5	.134/ 9.5	.126/ 9.8	.122/ 9.8			
13	13	.067/16.5	.072/16.5	.083/16.1	.097/15.3	.113/14.3	.126/13.7	.135/13.4	.140/13.1	.140/11.8	.137/11.2	.131/11.2	.126/11.2	.124/11.2			
15	15	.070/18.0	.073/17.5	.082/17.5	.093/16.5	.105/15.7	.116/14.6	.124/13.7	.129/13.4	.130/12.8	.128/12.8	.125/12.6	.122/12.6	.121/12.6			
17	17	.070/19.0	.073/19.0	.079/18.5	.088/18.0	.094/17.5	.101/16.1	.104/15.3	.118/15.0	.120/14.6	.119/14.3	.118/14.3	.115/14.3	.115/14.3			
19	19	.069/20.3	.071/20.3	.076/19.6	.083/19.6	.091/18.5	.098/17.5	.104/17.0	.109/16.5	.111/16.5	.110/16.5	.110/16.5	.109/16.5	.108/16.5			
21	21	.067/21.7	.069/21.7	.073/21.7	.078/20.9	.085/20.3	.091/19.6	.096/18.5	.100/18.0	.102/17.5	.103/17.0	.103/17.0	.102/16.5	.102/16.5			
15	7	.025/14.3	.040/ 8.3	.070/ 7.7	.103/ 7.0	.133/ 6.3	.156/ 6.3	.171/ 6.3	.176/ 6.3	.179/ 6.3	.156/ 6.4	.136/ 6.5	.115/ 6.7	.106/ 6.7			
9	9	.039/17.5	.049/17.5	.073/11.6	.101/ 8.7	.129/ 8.3	.153/ 8.1	.169/ 7.9	.178/ 7.7	.179/ 7.5	.172/ 7.5	.161/ 7.5	.149/ 7.5	.144/ 7.5			
11	11	.051/20.3	.057/20.3	.075/19.6	.097/18.1	.120/11.6	.141/10.5	.157/ 9.5	.166/ 9.5	.170/ 9.2	.168/ 9.2	.162/ 9.2	.156/ 9.2	.154/ 9.2			
13	13	.057/20.3	.062/20.3	.075/20.3	.092/20.3	.111/12.8	.124/12.6	.142/12.1	.152/11.6	.157/11.2	.157/11.2	.155/11.2	.152/11.2	.150/11.2			
15	15	.061/20.3	.067/20.3	.074/20.3	.090/20.3	.103/15.3	.117/15.0	.129/13.7	.136/13.1	.143/12.8	.145/12.6	.144/12.6	.143/12.6	.142/12.6			
17	17	.061/21.7	.064/21.7	.072/20.9	.083/20.3	.098/20.3	.107/17.5	.118/15.3	.126/15.0	.131/14.6	.133/14.3	.134/14.3	.133/14.3	.133/14.3			
19	19	.061/22.4	.063/22.4	.069/22.4	.078/21.7	.094/20.3	.104/18.0	.107/17.5	.115/17.0	.119/16.5	.122/16.1	.123/16.1	.123/16.1	.123/16.1			
21	21	.060/24.2	.062/24.2	.066/23.3	.074/22.4	.088/20.9	.091/20.3	.099/19.6	.105/18.0	.110/17.5	.112/17.0	.114/17.0	.114/16.5	.114/16.5			
20	7	.021/13.4	.037/13.4	.069/13.4	.107/ 5.7	.137/ 6.3	.153/ 6.3	.181/ 6.3	.189/ 6.3	.187/ 6.4	.174/ 6.7	.155/ 6.8	.136/ 7.0	.127/ 7.0			
9	9	.032/19.0	.043/19.0	.069/19.0	.101/ 9.0	.133/ 8.3	.152/ 7.1	.184/ 7.1	.199/ 7.3	.205/ 7.3	.203/ 7.3	.195/ 7.5	.187/ 7.5	.183/ 7.5			
11	11	.042/23.3	.049/23.3	.069/23.3	.095/19.0	.122/11.6	.148/ 9.8	.170/ 9.2	.185/ 9.0	.195/ 8.7	.194/ 8.3	.197/ 8.1	.195/ 8.1	.193/ 8.1			
13	13	.048/23.3	.053/23.3	.068/23.3	.093/23.3	.111/13.7	.133/11.6	.152/11.6	.167/11.2	.177/10.8	.183/10.5	.185/10.1	.184/10.1	.184/10.1			
15	15	.052/26.2	.056/26.2	.067/26.2	.093/23.3	.102/15.3	.120/15.0	.137/13.7	.150/13.4	.160/12.6	.166/12.6	.169/12.6	.170/12.6	.170/12.6			
17	17	.053/26.2	.056/26.2	.065/26.2	.094/23.3	.106/14.0	.124/14.0	.143/13.7	.156/13.4	.164/12.6	.170/12.6	.173/12.6	.173/12.6	.173/12.6			
19	19	.053/27.3	.056/27.3	.063/27.3	.094/26.2	.107/22.3	.124/22.3	.143/21.7	.156/21.7	.163/21.7	.166/21.7	.166/21.7	.166/21.7	.166/21.7			
21	21	.053/27.3	.055/27.3	.061/27.3	.094/26.2	.107/22.3	.124/22.3	.143/21.7	.156/21.7	.163/21.7	.166/21.7	.166/21.7	.166/21.7	.166/21.7			
25	7	.018/16.5	.035/16.5	.068/16.5	.105/ 6.3	.141/ 6.3	.170/ 6.3	.191/ 6.5	.201/ 6.7	.200/ 6.7	.189/ 6.8	.171/ 7.1	.152/ 7.1	.143/ 7.3			
9	9	.026/16.5	.043/16.5	.066/16.5	.102/16.5	.134/16.5	.162/ 7.1	.184/ 7.1	.200/ 7.3	.211/ 7.3	.214/ 7.3	.231/ 7.7	.225/ 7.7	.222/ 7.7			
11	11	.034/16.5	.042/16.5	.063/16.5	.094/16.5	.125/16.5	.157/ 9.5	.184/ 7.9	.207/ 7.9	.222/ 7.9	.232/ 8.1	.235/ 8.1	.236/ 8.1	.236/ 8.1			
13	13	.040/24.2	.046/24.2	.063/16.5	.093/16.5	.113/16.5	.140/11.6	.164/11.2	.185/10.8	.201/10.1	.212/ 8.5	.218/ 8.3	.221/ 8.3	.222/ 8.3			
15	15	.043/33.1	.049/33.1	.061/24.2	.090/16.5	.102/16.5	.125/16.5	.146/13.1	.165/12.4	.180/12.5	.197/11.2	.197/11.2	.200/11.2	.201/11.2			
17	17	.045/33.1	.049/33.1	.060/33.1	.085/24.2	.103/16.5	.124/16.5	.143/16.5	.167/14.6	.180/14.3	.170/14.3	.176/14.3	.180/14.0	.181/14.0			
19	19	.046/33.1	.049/33.1	.058/33.1	.070/33.1	.086/24.2	.102/16.5	.118/16.5	.132/16.5	.143/16.5	.152/16.5	.158/15.3	.162/15.0	.163/15.0			
21	21	.047/33.1	.047/33.1	.056/33.1	.066/33.1	.079/24.2	.093/20.3	.107/16.5	.119/16.0	.130/17.5	.136/17.0	.143/16.5	.146/16.5	.147/16.5			

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

CENTER OF GRAVITY - 201.7 FT FORWARD OF AP AND 18.7 FT FROM HL
(ACC. X 100)

		SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.082/8.7	.136/7.1	.236/5.7	.333/5.7	.417/5.7	.477/5.2	.507/5.2	.507/5.2	.476/5.2	.418/5.2	.341/5.2	.263/5.2	.224/5.2	
9	9	.106/11.2	.139/11.2	.209/8.7	.285/7.5	.352/7.3	.401/7.1	.428/7.1	.430/7.1	.409/7.3	.367/7.5	.312/7.7	.259/8.1	.234/8.1	
11	11	.118/12.1	.138/12.1	.185/11.5	.241/10.8	.291/9.0	.330/8.7	.352/8.5	.356/8.5	.343/8.5	.315/8.7	.278/9.0	.244/9.0	.229/9.0	
13	13	.118/13.4	.131/13.4	.164/13.1	.204/12.4	.243/11.2	.273/10.8	.291/10.5	.296/10.1	.283/10.1	.269/10.1	.245/10.1	.222/10.1	.213/10.1	
15	15	.112/14.3	.121/14.3	.145/14.0	.175/13.4	.204/12.6	.228/12.1	.243/11.6	.248/11.2	.231/11.2	.217/11.2	.203/11.2	.189/11.2	.193/11.2	
17	17	.104/15.7	.111/15.3	.128/15.0	.151/14.3	.174/13.7	.193/13.1	.205/12.6	.210/12.1	.207/12.1	.199/12.1	.187/12.1	.176/12.1	.172/12.1	
19	19	.095/16.5	.100/16.5	.113/15.7	.131/15.7	.150/15.0	.165/14.0	.175/13.4	.180/13.1	.178/12.8	.172/12.8	.164/12.8	.156/12.8	.153/12.8	
21	21	.086/17.5	.090/17.5	.101/17.0	.115/16.5	.130/15.7	.143/15.0	.151/14.6	.155/14.3	.155/14.3	.150/14.3	.144/14.3	.138/14.3	.135/14.3	
10	7	.063/9.5	.122/7.0	.227/5.2	.347/5.2	.434/5.2	.508/5.7	.552/5.7	.563/5.7	.542/5.7	.492/5.7	.420/5.7	.346/6.3	.311/6.3	
9	9	.080/14.5	.115/11.6	.195/7.5	.292/7.0	.363/6.7	.428/6.3	.471/6.4	.488/6.4	.481/6.7	.451/7.0	.407/7.1	.361/7.5	.340/7.5	
11	11	.089/15.0	.112/15.0	.167/11.6	.233/9.5	.296/8.3	.349/7.7	.386/7.9	.405/8.1	.405/8.3	.389/8.3	.363/8.5	.336/8.7	.324/8.7	
13	13	.090/15.7	.106/15.7	.145/15.3	.194/12.1	.243/11.2	.286/10.5	.317/9.2	.335/9.2	.339/9.2	.331/9.2	.315/9.5	.299/9.8	.292/9.8	
15	15	.087/17.0	.098/16.5	.126/16.1	.164/15.0	.203/14.0	.237/11.6	.263/11.2	.279/11.2	.285/10.8	.281/10.8	.272/10.8	.262/10.8	.258/11.2	
17	17	.081/18.0	.089/17.5	.111/17.0	.140/16.1	.171/15.7	.199/15.4	.221/14.6	.235/14.1	.241/14.1	.240/14.1	.235/14.1	.228/14.1	.225/14.1	
19	19	.075/18.5	.081/18.5	.098/18.0	.122/17.0	.147/15.7	.170/14.6	.188/13.4	.200/13.1	.206/12.8	.207/12.6	.203/12.6	.199/12.6	.197/12.6	
21	21	.069/19.6	.074/19.6	.087/19.0	.106/18.0	.127/17.0	.146/15.7	.162/14.6	.172/14.3	.178/14.0	.179/13.7	.177/14.0	.174/14.3	.173/14.3	
15	7	.049/8.1	.112/7.7	.224/5.2	.347/5.7	.459/5.7	.550/5.7	.610/5.7	.635/5.7	.623/5.7	.578/6.3	.510/6.4	.438/6.5	.404/6.5	
9	9	.060/14.6	.102/11.6	.188/7.9	.288/7.9	.387/6.3	.472/6.3	.536/6.3	.573/6.7	.583/6.7	.568/6.8	.535/7.0	.499/7.1	.483/7.1	
11	11	.066/17.5	.093/17.5	.156/11.6	.234/9.5	.313/8.3	.384/6.7	.440/6.8	.479/7.0	.497/7.1	.497/7.3	.484/7.3	.467/7.3	.460/7.5	
13	13	.068/20.3	.086/20.3	.132/20.3	.191/11.6	.254/9.0	.312/8.5	.360/8.5	.394/8.3	.415/8.5	.421/8.5	.417/8.7	.410/8.7	.406/8.7	
15	15	.066/20.3	.079/20.3	.113/20.3	.164/12.8	.209/12.1	.256/11.2	.296/10.5	.327/9.5	.346/9.5	.358/9.5	.355/9.8	.352/9.8	.350/9.8	
17	17	.063/20.3	.072/20.3	.099/20.3	.135/15.3	.175/13.1	.214/12.6	.247/12.1	.273/11.6	.291/11.2	.300/11.2	.303/10.8	.301/11.2	.300/11.2	
19	19	.059/21.7	.066/20.9	.087/20.3	.116/20.3	.144/19.3	.181/14.6	.209/13.1	.231/12.8	.247/12.6	.256/12.6	.259/12.6	.259/12.6	.259/12.6	
21	21	.055/22.4	.060/22.4	.077/21.7	.101/20.3	.128/17.5	.155/15.3	.179/14.6	.193/13.7	.212/13.4	.220/13.1	.223/12.8	.224/12.8	.224/12.8	
20	7	.038/13.4	.106/7.7	.225/5.7	.360/5.7	.490/5.7	.598/5.7	.674/6.3	.713/6.3	.712/6.3	.674/6.4	.610/6.7	.541/6.8	.509/6.8	
9	9	.046/13.4	.091/13.4	.186/7.7	.281/7.7	.387/6.3	.472/6.3	.536/6.3	.573/6.7	.583/6.7	.568/6.8	.535/7.0	.499/7.1	.483/7.1	
11	11	.049/19.0	.080/19.0	.151/14.0	.234/9.5	.313/8.3	.384/6.7	.440/6.8	.479/7.0	.497/7.1	.497/7.3	.484/7.3	.467/7.3	.460/7.5	
13	13	.051/23.3	.072/23.3	.125/14.0	.195/11.6	.273/6.7	.349/6.8	.418/7.1	.475/7.3	.516/7.3	.542/7.5	.554/7.5	.557/7.5	.558/7.5	
15	15	.050/23.3	.065/23.3	.105/23.3	.161/13.4	.223/10.5	.295/6.8	.343/7.3	.391/7.3	.428/7.5	.453/7.7	.467/7.7	.473/7.7	.474/7.7	
17	17	.048/26.2	.059/26.2	.094/26.2	.135/14.6	.185/13.4	.237/11.2	.284/7.3	.325/7.5	.357/7.5	.380/7.7	.393/7.7	.400/7.7	.401/7.7	
19	19	.046/26.2	.054/26.2	.079/26.2	.115/14.0	.156/14.6	.199/13.7	.239/12.1	.274/7.5	.301/7.7	.321/7.7	.334/7.7	.340/7.7	.342/7.9	
21	21	.043/27.3	.050/27.3	.070/26.2	.099/19.0	.134/15.7	.169/15.0	.209/14.0	.233/13.4	.257/7.7	.274/7.7	.286/7.7	.291/7.9	.293/7.9	
25	7	.032/16.5	.102/5.2	.228/5.7	.376/5.7	.521/5.7	.645/6.3	.737/6.3	.788/6.3	.796/6.7	.763/6.8	.701/6.8	.633/7.1	.602/7.1	
9	9	.036/16.5	.085/16.5	.187/5.7	.281/5.7	.387/6.3	.472/6.3	.536/6.3	.573/6.7	.583/6.7	.568/6.8	.535/7.0	.499/7.1	.483/7.1	
11	11	.038/16.5	.072/16.5	.150/6.3	.234/9.5	.313/8.3	.384/6.7	.440/6.8	.479/7.0	.497/7.1	.497/7.3	.484/7.3	.467/7.3	.460/7.5	
13	13	.038/16.5	.062/16.5	.122/16.5	.184/6.5	.244/6.7	.306/6.7	.360/6.8	.418/7.1	.475/7.3	.516/7.3	.542/7.5	.554/7.5	.558/7.5	
15	15	.038/22.2	.056/16.5	.102/18.5	.166/6.5	.242/6.7	.322/7.1	.399/7.3	.468/7.5	.527/7.5	.571/7.7	.603/7.9	.617/7.9	.622/7.9	
17	17	.037/22.2	.050/24.2	.086/16.5	.138/16.5	.200/6.8	.265/7.1	.330/7.5	.388/7.7	.438/7.7	.477/7.9	.503/7.9	.519/7.9	.523/7.9	
19	19	.036/13.1	.046/23.1	.074/16.5	.108/16.5	.168/16.5	.222/7.3	.274/7.5	.325/7.7	.368/7.7	.401/7.9	.424/7.9	.438/7.9	.442/7.9	
21	21	.034/13.1	.042/33.1	.065/33.1	.100/16.5	.143/16.5	.188/7.3	.234/7.5	.276/7.7	.312/7.7	.341/7.9	.361/7.9	.373/7.9	.377/7.9	

NOTE: V IS SHIP SPEED IN KNOTS AND I IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FFG 7															
SHORTCRESTED															
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS															
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM HL															
V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.112/ 8.7	.121/ 8.7	.131/ 8.7	.142/ 8.7	.153/ 8.7	.164/ 8.3	.186/ 8.3	.175/ 7.9	.157/ 7.5	.134/ 7.1	.109/ 7.0	.090/ 7.0	.082/ 7.0	
	9	.144/10.8	.151/ 8.7	.168/ 8.7	.188/ 8.7	.203/ 8.7	.210/ 8.7	.208/ 8.5	.198/ 8.5	.180/ 8.3	.157/ 8.3	.135/ 8.3	.117/ 8.3	.111/ 8.3	
	11	.157/12.1	.163/13.1	.178/12.1	.194/12.1	.207/12.1	.213/12.1	.211/ 8.7	.199/ 8.5	.182/ 8.5	.160/ 8.5	.139/ 8.5	.123/ 8.5	.117/ 8.5	
	13	.161/14.0	.167/13.7	.180/13.7	.195/13.7	.204/13.7	.210/13.4	.213/13.4	.200/13.4	.183/13.1	.140/12.8	.124/12.6	.118/12.6		
	15	.160/15.3	.166/15.3	.177/15.3	.191/15.3	.201/15.3	.210/15.3	.216/15.3	.203/15.0	.185/15.0	.164/14.6	.142/14.6	.125/14.3	.119/14.3	
	17	.157/17.0	.163/17.0	.177/17.0	.191/17.0	.201/17.0	.216/17.0	.214/17.0	.204/17.0	.187/17.0	.165/16.5	.143/16.5	.126/16.5	.119/16.5	
	19	.152/19.0	.159/19.0	.174/19.0	.192/19.0	.207/19.0	.215/18.5	.214/18.5	.205/18.5	.188/18.0	.166/18.0	.144/17.5	.126/17.5	.119/17.0	
	21	.149/20.5	.155/20.5	.171/20.5	.190/20.5	.206/20.5	.215/20.5	.215/20.3	.206/20.3	.189/20.3	.167/20.3	.144/19.6	.126/19.6	.118/19.6	
	10	7	.134/12.1	.142/12.1	.151/12.1	.162/12.1	.173/12.1	.186/ 8.5	.190/ 8.5	.174/ 8.5	.151/ 8.3	.123/ 7.3	.097/ 7.1	.077/ 7.0	.069/ 7.0
		9	.182/13.1	.187/13.1	.201/13.1	.215/12.8	.224/12.1	.225/12.1	.215/ 8.7	.197/ 8.7	.172/ 8.7	.146/ 8.5	.121/ 8.5	.103/ 8.5	.096/ 8.5
11		.194/13.7	.202/13.7	.213/13.7	.225/13.4	.233/13.4	.232/13.1	.220/12.6	.202/12.1	.176/ 9.0	.150/ 9.0	.127/ 9.0	.110/ 9.0	.104/ 9.0	
13		.198/14.6	.202/14.6	.213/14.6	.225/14.3	.233/14.3	.232/14.3	.220/14.0	.202/13.7	.177/13.4	.152/13.4	.128/13.4	.110/ 9.0	.104/ 9.0	
15		.192/16.1	.196/16.1	.208/16.1	.221/15.7	.230/15.7	.230/15.7	.221/15.7	.203/15.3	.180/15.3	.156/15.0	.130/14.6	.112/14.6	.105/14.6	
17		.183/18.0	.188/18.0	.201/18.0	.216/17.5	.226/17.5	.228/17.5	.220/17.5	.204/17.5	.181/17.0	.156/17.0	.131/17.0	.113/16.5	.105/16.5	
19		.175/19.6	.180/19.6	.194/19.6	.210/19.6	.221/19.0	.225/19.0	.219/19.0	.204/19.0	.182/18.5	.157/18.0	.132/18.0	.113/17.5	.106/17.5	
21		.168/21.7	.174/21.7	.189/21.7	.206/21.9	.218/21.9	.223/20.9	.213/19.9	.206/20.3	.184/20.3	.159/20.3	.134/20.3	.114/19.6	.107/19.6	
15		7	.226/17.5	.229/17.5	.237/17.5	.243/17.5	.243/17.5	.234/17.3	.213/16.3	.183/14.3	.149/ 7.9	.116/ 7.7	.087/ 7.3	.066/ 7.0	.059/ 7.0
		9	.262/17.5	.265/17.5	.271/17.5	.277/17.5	.283/17.5	.263/14.3	.239/14.3	.207/14.3	.170/ 8.5	.136/ 8.5	.109/ 8.5	.090/ 8.5	.083/ 8.5
	11	.264/17.5	.266/17.5	.273/17.5	.278/17.5	.284/17.5	.266/14.3	.242/14.3	.211/14.3	.175/14.3	.143/10.5	.116/ 9.5	.092/ 9.5	.092/ 9.5	
	13	.250/17.5	.253/17.5	.261/17.5	.268/17.5	.275/17.5	.259/17.5	.239/14.3	.210/14.3	.177/14.3	.145/13.7	.119/13.1	.101/10.1	.094/10.1	
	15	.233/17.5	.236/17.5	.246/17.5	.255/17.5	.264/17.5	.252/17.5	.231/17.5	.209/15.7	.178/15.3	.147/15.3	.121/15.0	.102/14.6	.094/14.6	
	17	.216/17.5	.221/17.5	.231/17.5	.241/17.5	.250/17.5	.235/17.5	.215/17.5	.207/17.5	.179/17.5	.149/17.0	.122/17.0	.102/17.0	.095/16.5	
	19	.203/19.6	.207/19.6	.219/19.6	.232/19.6	.244/19.6	.239/19.6	.219/19.6	.206/19.6	.179/19.0	.150/19.0	.124/19.0	.103/19.0	.096/19.0	
	21	.192/19.6	.197/19.6	.210/19.6	.225/20.9	.234/20.9	.235/20.9	.225/20.9	.206/20.3	.180/20.3	.152/20.3	.125/20.3	.105/19.6	.097/19.6	
	20	7	.388/13.4	.387/13.4	.385/13.4	.379/13.4	.361/13.4	.339/13.4	.283/13.4	.225/13.4	.166/13.4	.116/13.4	.080/ 7.9	.058/ 7.0	.051/ 7.0
		9	.394/19.0	.393/19.0	.392/19.0	.386/19.0	.370/19.0	.346/19.0	.294/19.0	.236/19.0	.181/19.0	.133/19.0	.100/ 8.7	.080/ 8.7	.074/ 8.7
11		.360/19.0	.361/19.0	.361/19.0	.359/19.0	.351/19.0	.342/19.0	.332/19.0	.322/19.0	.312/19.0	.302/19.0	.292/19.0	.282/19.0	.272/19.0	
13		.322/23.3	.324/23.3	.327/23.3	.330/23.3	.331/23.3	.331/23.3	.331/23.3	.331/23.3	.331/23.3	.331/23.3	.331/23.3	.331/23.3	.331/23.3	
15		.289/23.3	.292/23.3	.297/23.3	.301/23.3	.304/23.3	.307/23.3	.310/23.3	.313/23.3	.316/23.3	.319/23.3	.322/23.3	.325/23.3	.328/23.3	
17		.263/23.3	.266/23.3	.273/23.3	.280/23.3	.286/23.3	.293/23.3	.299/23.3	.306/23.3	.312/23.3	.319/23.3	.325/23.3	.332/23.3	.338/23.3	
19		.242/23.3	.245/23.3	.255/23.3	.264/23.3	.272/23.3	.280/23.3	.288/23.3	.296/23.3	.304/23.3	.312/23.3	.320/23.3	.328/23.3	.336/23.3	
21		.226/23.3	.230/23.3	.241/23.3	.251/23.3	.260/23.3	.269/23.3	.278/23.3	.287/23.3	.296/23.3	.305/23.3	.314/23.3	.323/23.3	.332/23.3	
25		7	.419/16.5	.423/16.5	.434/16.5	.442/16.5	.453/16.5	.464/16.5	.475/16.5	.486/16.5	.497/16.5	.508/16.5	.519/16.5	.530/16.5	.541/16.5
		9	.437/16.5	.439/16.5	.444/16.5	.449/16.5	.454/16.5	.459/16.5	.464/16.5	.469/16.5	.474/16.5	.479/16.5	.484/16.5	.489/16.5	.494/16.5
	11	.401/24.2	.403/24.2	.407/24.2	.411/24.2	.415/24.2	.419/24.2	.423/24.2	.427/24.2	.431/24.2	.435/24.2	.439/24.2	.443/24.2	.447/24.2	
	13	.361/24.2	.364/24.2	.368/24.2	.371/24.2	.375/24.2	.379/24.2	.383/24.2	.387/24.2	.391/24.2	.395/24.2	.399/24.2	.403/24.2	.407/24.2	
	15	.328/24.2	.331/24.2	.335/24.2	.339/24.2	.343/24.2	.347/24.2	.351/24.2	.355/24.2	.359/24.2	.363/24.2	.367/24.2	.371/24.2	.375/24.2	
	17	.301/24.2	.304/24.2	.308/24.2	.311/24.2	.315/24.2	.319/24.2	.323/24.2	.327/24.2	.331/24.2	.335/24.2	.339/24.2	.343/24.2	.347/24.2	
	19	.279/24.2	.282/24.2	.286/24.2	.290/24.2	.294/24.2	.298/24.2	.302/24.2	.306/24.2	.310/24.2	.314/24.2	.318/24.2	.322/24.2	.326/24.2	
	21	.262/24.2	.265/24.2	.269/24.2	.273/24.2	.277/24.2	.281/24.2	.285/24.2	.289/24.2	.293/24.2	.297/24.2	.301/24.2	.305/24.2	.309/24.2	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

FFG 7

SHORTCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.085/ 8.7	.094/ 8.7	.115/ 8.7	.137/ 8.3	.156/ 8.3	.168/ 7.9	.171/ 7.5	.165/ 7.1	.151/ 6.8	.131/ 6.7	.104/ 6.7	.088/ 6.7	.080/ 6.7	
	9	.095/ 8.7	.102/ 8.7	.119/ 8.7	.138/ 8.7	.154/ 8.7	.165/ 8.5	.168/ 8.3	.163/ 8.3	.151/ 8.3	.135/ 8.1	.116/ 7.9	.100/ 7.9	.094/ 7.9	
	11	.092/11.6	.097/11.6	.110/ 8.7	.125/ 8.7	.138/ 8.7	.146/ 8.7	.149/ 8.5	.145/ 8.5	.135/ 8.3	.121/ 8.3	.106/ 8.3	.094/ 8.3	.089/ 8.3	
	13	.085/12.6	.089/12.6	.100/12.6	.112/12.6	.123/12.6	.129/ 8.7	.131/ 8.5	.127/ 8.5	.119/ 8.5	.107/ 8.5	.094/ 8.5	.084/ 8.5	.080/ 8.5	
	15	.077/14.0	.081/14.0	.090/14.0	.100/14.0	.110/14.0	.115/13.7	.117/13.7	.113/13.4	.105/13.4	.095/13.1	.084/ 8.5	.075/ 8.5	.071/ 8.5	
	17	.070/15.3	.073/15.3	.081/15.3	.090/15.3	.099/15.3	.104/15.3	.105/15.3	.102/15.0	.096/15.0	.085/14.6	.075/14.3	.067/14.3	.064/14.3	
	19	.063/16.5	.066/16.5	.073/16.5	.082/16.5	.089/16.5	.094/16.0	.095/16.0	.092/16.5	.086/16.5	.077/16.5	.068/16.5	.060/16.5	.057/16.5	
	21	.057/17.0	.059/17.0	.066/17.0	.074/17.0	.081/17.0	.086/17.0	.087/17.0	.084/17.0	.078/17.0	.070/17.0	.062/17.0	.055/17.0	.052/17.0	
10	7	.084/12.1	.093/ 8.7	.113/ 8.5	.136/ 8.5	.154/ 8.5	.167/ 8.5	.167/ 8.5	.161/ 7.0	.146/ 7.0	.126/ 6.7	.103/ 6.7	.083/ 6.5	.073/ 6.7	
	9	.099/13.1	.105/12.8	.120/12.1	.138/12.1	.154/12.1	.162/ 8.7	.164/ 8.5	.159/ 8.5	.147/ 8.3	.130/ 8.3	.111/ 7.9	.096/ 7.9	.090/ 7.9	
	11	.098/13.4	.102/13.4	.114/13.4	.128/13.4	.143/13.4	.146/12.1	.147/ 8.7	.142/ 8.7	.132/ 8.7	.118/ 8.7	.103/ 8.7	.091/ 8.7	.086/ 8.7	
	13	.091/14.0	.094/14.0	.104/14.0	.115/14.0	.125/14.0	.130/14.0	.130/14.0	.126/12.6	.116/ 8.7	.104/ 8.7	.091/ 9.0	.081/ 9.0	.077/ 9.0	
	15	.082/14.6	.085/14.6	.093/14.6	.103/14.6	.113/14.6	.116/14.3	.116/14.3	.112/14.0	.104/14.0	.093/13.4	.081/ 9.0	.072/ 9.2	.068/ 9.2	
	17	.073/15.7	.076/15.7	.084/15.7	.093/15.7	.100/15.7	.105/15.7	.105/15.3	.101/15.3	.093/15.3	.083/15.0	.073/14.6	.064/14.6	.061/14.6	
	19	.066/17.0	.069/17.0	.075/17.0	.084/17.0	.091/17.0	.095/17.0	.095/17.0	.091/17.0	.084/17.0	.075/17.0	.066/16.5	.058/16.5	.055/16.5	
	21	.059/18.5	.062/18.5	.068/18.5	.076/18.5	.083/18.5	.086/18.5	.087/18.0	.083/18.0	.077/18.0	.069/17.5	.060/17.5	.053/17.0	.050/17.0	
15	7	.090/14.3	.098/14.3	.116/14.3	.136/14.3	.152/14.3	.161/14.3	.162/ 7.5	.155/ 7.3	.140/ 7.3	.120/ 7.0	.097/ 6.7	.078/ 6.5	.070/ 6.5	
	9	.107/17.5	.112/17.5	.126/17.5	.141/17.5	.154/17.5	.161/14.3	.161/14.3	.154/ 8.1	.141/ 8.1	.124/ 8.1	.105/ 7.9	.087/ 7.9	.084/ 7.9	
	11	.104/17.5	.109/17.5	.119/17.5	.132/17.5	.142/17.5	.146/14.3	.146/14.3	.140/14.3	.128/ 8.7	.114/ 8.7	.099/ 8.7	.087/ 9.0	.082/ 9.0	
	13	.095/17.5	.099/17.5	.104/17.5	.116/17.5	.127/17.5	.131/14.3	.130/14.3	.124/14.3	.114/12.6	.101/ 9.2	.088/ 9.2	.078/ 9.0	.074/ 9.5	
	15	.085/17.5	.088/17.5	.095/17.5	.106/17.5	.113/17.5	.117/14.3	.116/14.3	.111/14.3	.102/14.3	.090/13.7	.079/ 9.8	.070/ 9.8	.066/ 9.8	
	17	.076/17.5	.079/17.5	.086/17.5	.095/17.5	.102/17.5	.105/17.5	.105/17.5	.100/15.3	.091/15.3	.081/15.3	.070/15.0	.062/14.6	.059/14.6	
	19	.068/17.5	.070/17.5	.077/17.5	.084/17.5	.092/17.5	.095/17.5	.095/17.5	.090/17.5	.083/17.0	.073/17.0	.064/17.0	.056/16.5	.053/16.5	
	21	.061/17.5	.064/17.5	.070/17.5	.077/17.5	.084/17.5	.087/17.5	.086/17.5	.083/18.0	.076/18.0	.067/18.0	.058/17.5	.051/17.5	.048/17.5	
20	7	.094/13.4	.102/13.4	.120/13.4	.140/13.4	.156/13.4	.163/13.4	.163/13.4	.154/13.4	.137/13.4	.116/ 7.9	.093/ 6.5	.074/ 6.5	.067/ 6.5	
	9	.106/19.0	.112/19.0	.127/19.0	.143/19.0	.155/19.0	.162/13.4	.163/13.4	.152/13.4	.139/13.4	.120/ 8.3	.101/ 8.1	.086/ 7.9	.080/ 7.9	
	11	.102/19.0	.107/19.0	.118/19.0	.132/19.0	.142/19.0	.147/13.4	.146/13.4	.139/13.4	.128/13.4	.111/ 8.7	.096/ 9.0	.084/ 9.0	.079/ 9.0	
	13	.093/19.0	.097/19.0	.107/19.0	.118/19.0	.127/19.0	.131/19.0	.130/13.4	.123/13.4	.113/13.4	.099/13.4	.086/ 9.8	.076/ 9.8	.072/10.1	
	15	.083/19.0	.087/19.0	.096/19.0	.106/19.0	.114/19.0	.117/19.0	.116/19.0	.110/13.4	.100/13.4	.088/13.4	.077/10.5	.067/10.5	.064/10.5	
	17	.075/23.3	.078/23.3	.086/23.3	.095/23.3	.102/23.3	.104/19.0	.104/19.0	.099/19.0	.090/13.4	.079/15.3	.068/15.3	.060/10.8	.057/10.8	
	19	.067/23.3	.070/23.3	.077/23.3	.086/23.3	.092/23.3	.095/19.0	.094/19.0	.090/19.0	.082/19.0	.072/17.0	.062/17.0	.054/17.0	.051/16.5	
	21	.061/23.3	.064/23.3	.070/23.3	.078/23.3	.084/23.3	.086/19.0	.086/19.0	.082/19.0	.075/19.0	.066/18.0	.056/18.0	.049/18.0	.046/17.5	
25	7	.077/16.5	.083/16.5	.107/16.5	.124/16.5	.144/16.5	.153/16.5	.153/16.5	.145/ 8.7	.130/ 8.7	.110/ 8.7	.088/ 6.5	.070/ 6.7	.063/ 6.7	
	9	.086/16.5	.093/16.5	.111/16.5	.129/16.5	.146/16.5	.152/16.5	.152/16.5	.145/16.5	.132/16.5	.114/ 8.7	.096/ 8.7	.082/ 7.9	.076/ 7.7	
	11	.085/16.5	.091/16.5	.105/16.5	.121/16.5	.133/16.5	.140/16.5	.140/16.5	.134/16.5	.122/16.5	.107/ 8.7	.092/ 9.0	.080/ 9.0	.075/ 9.2	
	13	.081/16.5	.086/16.5	.099/16.5	.111/16.5	.121/16.5	.126/16.5	.126/16.5	.120/16.5	.108/16.5	.096/16.5	.083/10.1	.069/10.1	.062/10.1	
	15	.075/24.2	.078/24.2	.090/24.2	.103/24.2	.110/24.2	.114/16.5	.114/16.5	.108/16.5	.098/16.5	.086/16.5	.074/11.2	.065/11.2	.058/11.2	
	17	.070/24.2	.073/24.2	.082/24.2	.092/24.2	.100/24.2	.103/16.5	.103/16.5	.097/16.5	.089/16.5	.078/16.5	.067/15.3	.058/11.2	.055/11.2	
	19	.064/24.2	.067/24.2	.075/24.2	.084/24.2	.091/24.2	.094/16.5	.093/16.5	.089/16.5	.080/16.5	.070/16.5	.060/17.0	.052/17.0	.049/17.0	
	21	.059/29.9	.062/29.9	.069/24.2	.077/24.2	.083/24.2	.086/16.5	.086/16.5	.081/16.5	.074/16.5	.064/16.5	.055/18.0	.047/19.0	.045/19.6	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHUTTERTESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)

AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM HL

V	T	SHIP HEADING ANGLE 14 DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	9	7 .210/ 8.7 9 .209/ 8.7 11 .183/ 8.7 13 .156/ 8.7 15 .132/12.8 17 .111/12.8 19 .095/13.1 21 .082/14.9	7 .241/ 8.7 9 .232/ 8.7 11 .200/ 8.7 13 .168/ 8.7 15 .141/12.1 17 .119/12.8 19 .101/13.4 21 .087/14.9	7 .313/ 8.7 9 .285/ 8.7 11 .239/ 8.7 13 .197/ 8.7 15 .164/ 8.7 17 .138/ 8.7 19 .117/13.4 21 .100/14.3	7 .393/ 8.7 9 .348/ 8.7 11 .265/ 8.7 13 .233/ 8.7 15 .204/ 8.7 17 .181/ 8.7 19 .158/ 8.7 21 .138/ 8.7	7 .464/ 8.7 9 .404/ 8.7 11 .329/ 8.7 13 .266/ 8.7 15 .218/ 8.7 17 .182/ 8.7 19 .153/ 8.7 21 .131/14.0	7 .513/ 8.8 9 .445/ 8.7 11 .369/ 8.7 13 .290/ 8.7 15 .247/ 8.7 17 .217/ 8.7 19 .187/ 8.7 21 .162/ 8.7	7 .536/ 8.7 9 .455/ 8.7 11 .376/ 8.7 13 .302/ 8.7 15 .267/ 8.7 17 .235/ 8.7 19 .205/ 8.7 21 .173/ 8.7	7 .529/ 8.7 9 .462/ 8.7 11 .374/ 8.7 13 .301/ 8.7 15 .265/ 8.7 17 .234/ 8.7 19 .204/ 8.7 21 .172/ 8.7	7 .529/ 8.7 9 .462/ 8.7 11 .374/ 8.7 13 .301/ 8.7 15 .265/ 8.7 17 .234/ 8.7 19 .204/ 8.7 21 .172/ 8.7	7 .496/ 8.7 9 .436/ 7.5 11 .355/ 8.7 13 .286/ 8.7 15 .233/ 8.7 17 .193/ 8.7 19 .163/ 8.7 21 .139/ 8.7	7 .434/ 8.7 9 .391/ 7.3 11 .321/ 8.7 13 .260/ 8.7 15 .213/ 8.7 17 .176/ 8.7 19 .148/ 8.7 21 .127/ 8.7	7 .359/ 8.7 9 .287/ 7.1 11 .281/ 8.1 13 .229/ 8.3 15 .188/ 8.3 17 .156/ 8.3 19 .132/ 8.3 21 .112/ 8.3	7 .259/ 6.3 9 .266/ 7.3 11 .231/ 8.1 13 .202/ 8.3 15 .197/ 8.3 17 .167/ 8.3 19 .139/ 8.3 21 .100/ 8.3	
10	9	7 .177/ 8.5 9 .181/12.1 11 .163/13.1 13 .141/13.4 15 .120/13.7 17 .102/14.0 19 .088/14.3 21 .076/14.6	7 .210/ 8.5 9 .203/12.1 11 .179/13.1 13 .152/13.4 15 .129/13.7 17 .104/14.0 19 .094/14.3 21 .081/14.6	7 .283/ 8.5 9 .257/ 8.7 11 .217/12.6 13 .181/13.4 15 .152/13.7 17 .128/14.0 19 .109/14.3 21 .094/14.6	7 .307/ 8.5 9 .321/ 8.5 11 .257/ 8.7 13 .219/ 8.7 15 .181/13.7 17 .147/13.7 19 .124/14.3 21 .110/14.6	7 .442/ 8.5 9 .381/ 8.5 11 .311/ 8.7 13 .253/ 8.7 15 .208/13.7 17 .174/13.7 19 .149/14.3 21 .126/14.6	7 .498/ 8.7 9 .428/ 8.7 11 .348/ 8.7 13 .291/ 8.7 15 .247/ 8.7 17 .213/ 8.7 19 .187/ 8.7 21 .162/ 8.7	7 .527/ 8.7 9 .455/ 8.7 11 .370/ 8.7 13 .302/ 8.7 15 .267/ 8.7 17 .235/ 8.7 19 .205/ 8.7 21 .173/ 8.7	7 .527/ 8.7 9 .455/ 8.7 11 .370/ 8.7 13 .302/ 8.7 15 .267/ 8.7 17 .235/ 8.7 19 .205/ 8.7 21 .173/ 8.7	7 .527/ 8.7 9 .455/ 8.7 11 .370/ 8.7 13 .302/ 8.7 15 .267/ 8.7 17 .235/ 8.7 19 .205/ 8.7 21 .173/ 8.7	7 .496/ 8.7 9 .436/ 7.5 11 .355/ 8.7 13 .286/ 8.7 15 .233/ 8.7 17 .193/ 8.7 19 .163/ 8.7 21 .139/ 8.7	7 .434/ 8.7 9 .391/ 7.3 11 .321/ 8.7 13 .260/ 8.7 15 .213/ 8.7 17 .176/ 8.7 19 .148/ 8.7 21 .127/ 8.7	7 .359/ 8.7 9 .287/ 7.1 11 .281/ 8.1 13 .229/ 8.3 15 .188/ 8.3 17 .156/ 8.3 19 .132/ 8.3 21 .112/ 8.3	7 .259/ 6.3 9 .266/ 7.3 11 .231/ 8.1 13 .202/ 8.3 15 .197/ 8.3 17 .167/ 8.3 19 .139/ 8.3 21 .100/ 8.3	
15	7	7 .151/14.3 9 .157/14.3 11 .143/14.3 13 .124/17.5 15 .106/17.5 17 .091/17.5 19 .078/17.5 21 .068/17.5	7 .182/14.3 9 .179/14.3 11 .159/14.3 13 .136/17.5 15 .116/17.5 17 .099/17.5 19 .085/17.5 21 .073/17.5	7 .254/14.3 9 .231/14.3 11 .197/14.3 13 .165/14.3 15 .139/17.5 17 .118/17.5 19 .100/17.5 21 .087/17.5	7 .284/14.3 9 .294/14.3 11 .257/14.3 13 .219/14.3 15 .181/14.3 17 .147/14.3 19 .124/14.3 21 .110/14.6	7 .417/ 7.1 9 .358/14.3 11 .294/14.3 13 .240/14.3 15 .199/14.3 17 .166/14.3 19 .141/14.3 21 .121/14.3	7 .477/ 7.1 9 .410/ 7.7 11 .335/ 8.1 13 .272/13.3 15 .224/14.3 17 .181/14.3 19 .154/14.3 21 .135/17.5	7 .513/ 7.0 9 .447/ 7.5 11 .362/ 7.9 13 .301/ 8.3 15 .261/ 8.5 17 .225/14.3 19 .200/ 8.5 21 .172/14.3	7 .513/ 7.0 9 .447/ 7.5 11 .362/ 7.9 13 .301/ 8.3 15 .261/ 8.5 17 .225/14.3 19 .200/ 8.5 21 .172/14.3	7 .513/ 7.0 9 .447/ 7.5 11 .362/ 7.9 13 .301/ 8.3 15 .261/ 8.5 17 .225/14.3 19 .200/ 8.5 21 .172/14.3	7 .497/ 6.7 9 .440/ 7.1 11 .363/ 7.9 13 .295/ 8.3 15 .261/ 8.5 17 .225/ 8.5 19 .200/ 8.5 21 .168/ 8.7	7 .447/ 6.3 9 .405/ 7.1 11 .338/ 7.9 13 .275/ 8.3 15 .225/ 8.5 17 .187/ 8.7 19 .169/ 9.0 21 .157/ 9.2	7 .379/ 6.3 9 .357/ 7.1 11 .303/ 7.9 13 .269/ 8.3 15 .204/ 8.7 17 .169/ 9.0 19 .149/ 9.2 21 .121/ 9.0	7 .282/ 6.3 9 .291/ 7.1 11 .270/ 7.9 13 .224/ 8.5 15 .185/ 8.7 17 .177/ 9.0 19 .154/ 9.2 21 .129/ 9.2	
20	7	7 .128/13.4 9 .129/13.4 11 .117/19.0 13 .102/19.0 15 .098/19.0 17 .076/19.0 19 .066/19.0 21 .058/19.0	7 .159/13.4 9 .151/13.4 11 .133/19.0 13 .115/19.0 15 .098/19.0 17 .085/19.0 19 .073/19.0 21 .064/19.0	7 .232/13.4 9 .205/13.4 11 .174/13.4 13 .146/19.0 15 .123/19.0 17 .105/19.0 19 .091/19.0 21 .079/19.0	7 .318/13.4 9 .287/13.4 11 .257/13.4 13 .229/13.4 15 .204/13.4 17 .181/13.4 19 .154/13.4 21 .133/19.0	7 .400/13.4 9 .341/13.4 11 .290/13.4 13 .249/13.4 15 .209/13.4 17 .182/13.4 19 .154/13.4 21 .135/19.0	7 .468/13.4 9 .394/13.4 11 .326/13.4 13 .285/13.4 15 .245/13.4 17 .213/13.4 19 .187/13.4 21 .167/13.4	7 .506/13.4 9 .437/13.4 11 .389/13.4 13 .348/13.4 15 .307/13.4 17 .275/13.4 19 .248/13.4 21 .221/13.4	7 .506/13.4 9 .437/13.4 11 .389/13.4 13 .348/13.4 15 .307/13.4 17 .275/13.4 19 .248/13.4 21 .221/13.4	7 .506/13.4 9 .437/13.4 11 .389/13.4 13 .348/13.4 15 .307/13.4 17 .275/13.4 19 .248/13.4 21 .221/13.4	7 .499/ 5.7 9 .444/ 7.0 11 .368/ 8.1 13 .300/ 8.5 15 .245/ 8.7 17 .203/ 8.7 19 .175/ 9.0 21 .147/ 9.2	7 .453/ 6.3 9 .413/ 7.5 11 .345/ 8.1 13 .283/ 8.5 15 .231/ 8.7 17 .192/ 8.7 19 .160/ 9.0 21 .134/ 9.5	7 .388/ 6.3 9 .366/ 7.1 11 .313/ 7.9 13 .257/ 8.5 15 .211/ 8.7 17 .175/ 9.0 19 .160/ 9.2 21 .147/ 9.2	7 .322/ 6.3 9 .322/ 7.0 11 .281/ 7.9 13 .234/ 8.5 15 .193/ 9.0 17 .153/ 9.2 19 .134/ 9.5 21 .114/ 9.5	7 .292/ 6.3 9 .302/ 7.0 11 .267/ 7.9 13 .220/ 8.5 15 .185/ 9.0 17 .147/ 9.2 19 .138/ 9.5 21 .117/10.1
25	9	7 .094/16.5 9 .093/16.5 11 .086/16.5 13 .078/16.5 15 .069/16.5 17 .052/16.5 19 .055/16.5 21 .049/24.2	7 .125/ 8.1 9 .116/16.5 11 .104/16.5 13 .091/16.5 15 .080/16.5 17 .067/16.5 19 .062/16.5 21 .055/16.5	7 .193/ 8.7 9 .173/16.5 11 .167/16.5 13 .154/16.5 15 .142/16.5 17 .128/16.5 19 .124/16.5 21 .107/16.5	7 .287/ 8.7 9 .264/16.5 11 .253/16.5 13 .239/16.5 15 .226/16.5 17 .213/16.5 19 .200/16.5 21 .187/16.5	7 .373/ 8.7 9 .341/16.5 11 .330/16.5 13 .316/16.5 15 .303/16.5 17 .289/16.5 19 .276/16.5 21 .263/16.5	7 .449/ 8.7 9 .417/16.5 11 .406/16.5 13 .392/16.5 15 .379/16.5 17 .365/16.5 19 .352/16.5 21 .339/16.5	7 .508/ 8.7 9 .467/ 8.7 11 .456/16.5 13 .442/16.5 15 .429/16.5 17 .415/16.5 19 .402/16.5 21 .389/16.5	7 .508/ 8.7 9 .467/ 8.7 11 .456/16.5 13 .442/16.5 15 .429/16.5 17 .415/16.5 19 .402/16.5 21 .389/16.5	7 .508/ 8.7 9 .467/ 8.7 11 .456/16.5 13 .442/16.5 15 .429/16.5 17 .415/16.5 19 .402/16.5 21 .389/16.5	7 .494/ 5.7 9 .442/ 7.0 11 .369/ 8.1 13 .301/ 8.7 15 .247/ 8.7 17 .205/ 8.7 19 .175/ 9.0 21 .147/ 9.2	7 .453/ 6.3 9 .413/ 7.5 11 .345/ 8.1 13 .283/ 8.5 15 .231/ 8.7 17 .192/ 8.7 19 .160/ 9.0 21 .134/ 9.5	7 .391/ 6.3 9 .372/ 6.9 11 .318/ 7.7 13 .267/ 8.7 15 .216/ 9.0 17 .179/ 9.2 19 .153/ 9.5 21 .127/ 9.5	7 .297/ 6.3 9 .309/ 7.1 11 .274/ 7.7 13 .230/ 8.5 15 .190/ 9.0 17 .154/ 9.2 19 .133/ 9.5 21 .112/10.1	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM RL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.166/10.1	.173/10.1	.193/9.8	.217/8.5	.239/7.9	.255/7.5	.263/7.0	.262/6.8	.251/6.8	.233/6.8	.213/6.8	.197/7.0	.191/7.0	
	9	.250/11.2	.253/11.2	.269/11.2	.290/10.1	.297/10.5	.290/10.1	.297/9.0	.300/8.3	.299/8.3	.296/8.1	.293/8.1	.288/8.1	.286/8.1	
	11	.294/12.6	.295/12.6	.295/12.1	.296/12.1	.297/12.1	.300/11.6	.304/10.8	.304/10.5	.313/9.8	.318/9.2	.327/9.2	.325/9.2	.326/9.2	
	13	.304/14.0	.308/14.0	.305/13.7	.301/13.4	.298/13.4	.297/13.1	.294/12.6	.304/12.1	.311/11.6	.319/11.2	.327/11.2	.332/11.2	.334/11.2	
	15	.304/15.7	.308/15.7	.304/15.7	.299/15.3	.294/15.3	.291/15.0	.292/14.6	.267/14.3	.304/13.7	.313/13.1	.321/12.6	.326/12.6	.328/12.6	
	17	.303/17.5	.302/17.5	.298/17.5	.292/17.5	.287/17.0	.294/17.0	.284/16.5	.288/16.5	.295/15.7	.303/15.0	.310/14.6	.316/14.3	.318/14.3	
	19	.296/19.6	.294/19.6	.291/19.6	.286/19.0	.281/19.0	.285/19.0	.278/18.5	.281/18.0	.287/17.5	.294/17.0	.301/16.5	.305/16.5	.307/16.5	
21	.290/22.4	.288/22.4	.285/21.7	.281/21.7	.277/20.9	.274/20.9	.269/20.3	.276/20.3	.281/19.6	.287/19.6	.293/19.6	.297/19.6	.294/19.6		
10	7	.148/13.4	.156/13.4	.175/13.4	.199/12.8	.222/8.7	.240/7.0	.249/7.0	.250/6.8	.241/6.8	.225/6.8	.207/7.0	.192/7.0	.186/7.0	
	9	.230/14.0	.233/14.0	.241/14.0	.252/14.0	.265/13.7	.276/11.2	.286/9.0	.292/8.5	.293/8.3	.292/8.1	.289/8.1	.286/8.1	.285/8.1	
	11	.275/15.0	.276/15.0	.277/15.0	.279/15.0	.283/14.3	.288/13.4	.294/12.1	.302/10.8	.309/10.1	.316/9.2	.321/9.2	.324/9.2	.325/9.2	
	13	.291/16.1	.291/16.1	.289/15.7	.287/15.3	.286/15.3	.287/14.5	.291/13.7	.298/12.6	.307/12.1	.317/11.2	.325/11.2	.330/11.2	.332/11.2	
	15	.294/17.0	.293/17.0	.290/17.0	.287/17.0	.284/16.5	.283/15.7	.286/15.3	.292/14.6	.300/14.0	.310/13.4	.318/12.8	.324/12.6	.326/12.6	
	17	.291/19.0	.290/19.0	.286/19.0	.282/18.5	.279/18.0	.277/17.5	.274/17.0	.284/16.5	.291/16.5	.300/15.3	.308/14.6	.314/14.6	.316/14.3	
	19	.285/20.9	.284/20.9	.281/20.9	.277/20.9	.274/20.3	.271/20.3	.267/19.6	.277/18.5	.284/17.5	.291/17.0	.298/16.5	.303/16.5	.305/16.5	
21	.281/23.3	.280/23.3	.278/23.3	.274/22.4	.271/21.7	.269/21.7	.264/20.9	.273/20.3	.278/19.6	.285/19.6	.291/19.6	.295/19.6	.296/19.6		
15	7	.135/17.5	.142/14.3	.161/14.3	.185/14.3	.209/14.3	.228/14.3	.238/7.1	.240/7.0	.233/6.8	.218/6.8	.201/7.0	.186/7.0	.180/7.0	
	9	.213/17.5	.216/17.5	.225/17.5	.237/17.5	.251/17.5	.265/17.5	.277/14.3	.284/8.3	.287/8.3	.287/8.3	.284/8.3	.282/8.3	.281/8.3	
	11	.257/20.3	.258/20.3	.260/19.6	.264/17.5	.270/17.5	.278/17.5	.286/14.3	.295/10.8	.304/10.1	.311/9.5	.317/9.2	.320/9.2	.321/9.2	
	13	.275/20.3	.275/20.3	.274/20.3	.274/20.3	.275/17.5	.278/17.5	.284/14.3	.293/12.6	.303/12.1	.312/11.6	.321/11.2	.326/11.2	.328/11.2	
	15	.280/20.3	.280/20.3	.278/20.3	.275/20.3	.274/20.3	.275/17.5	.279/17.5	.287/15.0	.296/14.3	.305/13.7	.314/13.1	.320/12.8	.323/12.6	
	17	.279/20.3	.278/20.3	.276/20.3	.273/20.3	.271/20.3	.270/19.6	.273/17.5	.281/17.5	.287/16.5	.296/15.7	.304/15.0	.310/14.6	.312/14.6	
	19	.276/22.4	.275/22.4	.272/22.4	.269/21.7	.267/20.9	.266/20.3	.264/19.6	.273/19.6	.280/18.0	.288/17.5	.295/17.0	.300/16.5	.301/16.5	
21	.273/25.1	.272/25.1	.270/24.2	.267/24.2	.265/23.3	.264/22.4	.265/20.9	.269/20.3	.275/20.3	.282/19.6	.288/19.6	.292/19.6	.293/19.6		
20	7	.126/13.4	.133/13.4	.152/13.4	.176/13.4	.200/13.4	.226/13.4	.242/13.4	.245/13.4	.229/7.0	.215/7.0	.198/7.0	.183/7.0	.177/7.0	
	9	.200/23.3	.203/23.3	.212/19.0	.225/19.0	.241/19.0	.257/19.0	.270/13.4	.280/13.4	.285/8.3	.285/8.1	.283/8.1	.281/8.1	.280/8.1	
	11	.242/23.3	.243/23.3	.246/23.3	.251/23.3	.254/19.0	.259/19.0	.260/19.0	.261/13.4	.301/10.1	.309/9.8	.315/9.5	.318/9.2	.319/9.2	
	13	.261/26.2	.261/26.2	.261/26.2	.262/23.3	.265/23.3	.270/19.0	.278/19.0	.288/13.4	.299/13.4	.309/11.2	.318/11.2	.323/11.2	.325/11.2	
	15	.268/26.2	.267/26.2	.266/26.2	.265/26.2	.265/26.2	.268/23.3	.274/19.0	.282/15.0	.292/14.3	.302/14.0	.311/13.1	.317/12.8	.319/12.8	
	17	.268/26.2	.268/26.2	.266/26.2	.264/26.2	.263/23.3	.264/23.3	.268/19.0	.275/19.0	.284/18.5	.293/18.0	.301/17.5	.306/17.0	.308/17.0	
	19	.267/27.3	.266/27.3	.264/27.3	.262/26.2	.260/26.2	.261/23.3	.264/23.3	.265/19.0	.272/19.0	.284/17.5	.291/17.0	.296/16.5	.298/16.5	
21	.265/27.3	.265/27.3	.263/27.3	.261/27.3	.259/26.2	.259/23.3	.261/23.3	.266/20.9	.277/20.3	.284/19.6	.291/19.6	.296/19.6	.290/19.6		
25	7	.125/16.5	.132/16.5	.148/16.5	.171/16.5	.195/16.5	.215/16.5	.228/16.5	.232/16.5	.227/6.8	.215/6.8	.198/7.0	.183/7.1	.177/7.1	
	9	.194/16.5	.197/16.5	.205/16.5	.218/16.5	.234/16.5	.252/16.5	.268/16.5	.280/16.5	.287/16.5	.290/7.7	.289/7.7	.286/7.7	.285/7.7	
	11	.233/14.9	.234/14.9	.237/14.9	.242/14.9	.246/14.9	.253/14.9	.257/14.9	.260/14.9	.302/10.1	.312/9.5	.318/9.2	.322/9.2	.324/9.2	
	13	.251/13.1	.251/13.1	.251/13.1	.252/13.1	.256/13.1	.264/13.1	.274/16.5	.286/16.5	.299/12.1	.310/11.6	.319/11.2	.325/11.2	.327/11.2	
	15	.258/13.1	.257/13.1	.256/13.1	.256/13.1	.257/12.4	.262/12.4	.269/16.5	.281/16.5	.291/16.5	.302/14.0	.311/13.4	.317/12.8	.319/12.8	
	17	.258/13.1	.257/13.1	.256/13.1	.255/13.1	.256/13.1	.258/12.4	.264/16.5	.272/16.5	.282/16.5	.292/16.5	.301/15.3	.305/15.0	.307/15.0	
	19	.258/13.1	.257/13.1	.256/13.1	.254/13.1	.254/13.1	.255/12.4	.264/16.5	.274/18.0	.284/17.5	.290/17.0	.296/16.5	.298/16.5	.296/16.5	
21	.258/13.1	.257/13.1	.256/13.1	.254/13.1	.253/13.1	.254/12.4	.263/12.4	.263/24.2	.269/20.3	.276/19.6	.282/19.6	.287/19.6	.288/19.6		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

STURDICESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM RL

V T	SHIP HEADING ANGLE IN DEGREES									
	0	15	30	45	60	75	90	105	120	135
5	7 121/9.8 132/9.8 154/10.4 173/10.8 190/11.6 207/12.6 223/13.4 239/14.4 254/15.0 269/15.5 284/16.0 299/16.5 314/17.0 329/17.5 344/18.0 359/18.5 374/19.0 389/19.5 404/20.0 419/20.5 434/21.0 449/21.5 464/22.0 479/22.5 494/23.0 509/23.5 524/24.0 539/24.5 554/25.0 569/25.5 584/26.0 599/26.5 614/27.0 629/27.5 644/28.0 659/28.5 674/29.0 689/29.5 704/30.0 719/30.5 734/31.0 749/31.5 764/32.0 779/32.5 794/33.0 809/33.5 824/34.0 839/34.5 854/35.0 869/35.5 884/36.0 899/36.5 914/37.0 929/37.5 944/38.0 959/38.5 974/39.0 989/39.5 1004/40.0 1019/40.5 1034/41.0 1049/41.5 1064/42.0 1079/42.5 1094/43.0 1109/43.5 1124/44.0 1139/44.5 1154/45.0 1169/45.5 1184/46.0 1199/46.5 1214/47.0 1229/47.5 1244/48.0 1259/48.5 1274/49.0 1289/49.5 1304/50.0 1319/50.5 1334/51.0 1349/51.5 1364/52.0 1379/52.5 1394/53.0 1409/53.5 1424/54.0 1439/54.5 1454/55.0 1469/55.5 1484/56.0 1499/56.5 1514/57.0 1529/57.5 1544/58.0 1559/58.5 1574/59.0 1589/59.5 1604/60.0 1619/60.5 1634/61.0 1649/61.5 1664/62.0 1679/62.5 1694/63.0 1709/63.5 1724/64.0 1739/64.5 1754/65.0 1769/65.5 1784/66.0 1799/66.5 1814/67.0 1829/67.5 1844/68.0 1859/68.5 1874/69.0 1889/69.5 1904/70.0 1919/70.5 1934/71.0 1949/71.5 1964/72.0 1979/72.5 1994/73.0 2009/73.5 2024/74.0 2039/74.5 2054/75.0 2069/75.5 2084/76.0 2099/76.5 2114/77.0 2129/77.5 2144/78.0 2159/78.5 2174/79.0 2189/79.5 2204/80.0 2219/80.5 2234/81.0 2249/81.5 2264/82.0 2279/82.5 2294/83.0 2309/83.5 2324/84.0 2339/84.5 2354/85.0 2369/85.5 2384/86.0 2399/86.5 2414/87.0 2429/87.5 2444/88.0 2459/88.5 2474/89.0 2489/89.5 2504/90.0 2519/90.5 2534/91.0 2549/91.5 2564/92.0 2579/92.5 2594/93.0 2609/93.5 2624/94.0 2639/94.5 2654/95.0 2669/95.5 2684/96.0 2699/96.5 2714/97.0 2729/97.5 2744/98.0 2759/98.5 2774/99.0 2789/99.5 2804/100.0 2819/100.5 2834/101.0 2849/101.5 2864/102.0 2879/102.5 2894/103.0 2909/103.5 2924/104.0 2939/104.5 2954/105.0 2969/105.5 2984/106.0 2999/106.5 3014/107.0 3029/107.5 3044/108.0 3059/108.5 3074/109.0 3089/109.5 3104/110.0 3119/110.5 3134/111.0 3149/111.5 3164/112.0 3179/112.5 3194/113.0 3209/113.5 3224/114.0 3239/114.5 3254/115.0 3269/115.5 3284/116.0 3299/116.5 3314/117.0 3329/117.5 3344/118.0 3359/118.5 3374/119.0 3389/119.5 3404/120.0 3419/120.5 3434/121.0 3449/121.5 3464/122.0 3479/122.5 3494/123.0 3509/123.5 3524/124.0 3539/124.5 3554/125.0 3569/125.5 3584/126.0 3599/126.5 3614/127.0 3629/127.5 3644/128.0 3659/128.5 3674/129.0 3689/129.5 3704/130.0 3719/130.5 3734/131.0 3749/131.5 3764/132.0 3779/132.5 3794/133.0 3809/133.5 3824/134.0 3839/134.5 3854/135.0 3869/135.5 3884/136.0 3899/136.5 3914/137.0 3929/137.5 3944/138.0 3959/138.5 3974/139.0 3989/139.5 4004/140.0 4019/140.5 4034/141.0 4049/141.5 4064/142.0 4079/142.5 4094/143.0 4109/143.5 4124/144.0 4139/144.5 4154/145.0 4169/145.5 4184/146.0 4199/146.5 4214/147.0 4229/147.5 4244/148.0 4259/148.5 4274/149.0 4289/149.5 4304/150.0 4319/150.5 4334/151.0 4349/151.5 4364/152.0 4379/152.5 4394/153.0 4409/153.5 4424/154.0 4439/154.5 4454/155.0 4469/155.5 4484/156.0 4499/156.5 4514/157.0 4529/157.5 4544/158.0 4559/158.5 4574/159.0 4589/159.5 4604/160.0 4619/160.5 4634/161.0 4649/161.5 4664/162.0 4679/162.5 4694/163.0 4709/163.5 4724/164.0 4739/164.5 4754/165.0 4769/165.5 4784/166.0 4799/166.5 4814/167.0 4829/167.5 4844/168.0 4859/168.5 4874/169.0 4889/169.5 4904/170.0 4919/170.5 4934/171.0 4949/171.5 4964/172.0 4979/172.5 4994/173.0 5009/173.5 5024/174.0 5039/174.5 5054/175.0 5069/175.5 5084/176.0 5099/176.5 5114/177.0 5129/177.5 5144/178.0 5159/178.5 5174/179.0 5189/179.5 5204/180.0 5219/180.5 5234/181.0 5249/181.5 5264/182.0 5279/182.5 5294/183.0 5309/183.5 5324/184.0 5339/184.5 5354/185.0 5369/185.5 5384/186.0 5399/186.5 5414/187.0 5429/187.5 5444/188.0 5459/188.5 5474/189.0 5489/189.5 5504/190.0 5519/190.5 5534/191.0 5549/191.5 5564/192.0 5579/192.5 5594/193.0 5609/193.5 5624/194.0 5639/194.5 5654/195.0 5669/195.5 5684/196.0 5699/196.5 5714/197.0 5729/197.5 5744/198.0 5759/198.5 5774/199.0 5789/199.5 5804/200.0 5819/200.5 5834/201.0 5849/201.5 5864/202.0 5879/202.5 5894/203.0 5909/203.5 5924/204.0 5939/204.5 5954/205.0 5969/205.5 5984/206.0 5999/206.5 6014/207.0 6029/207.5 6044/208.0 6059/208.5 6074/209.0 6089/209.5 6104/210.0 6119/210.5 6134/211.0 6149/211.5 6164/212.0 6179/212.5 6194/213.0 6209/213.5 6224/214.0 6239/214.5 6254/215.0 6269/215.5 6284/216.0 6299/216.5 6314/217.0 6329/217.5 6344/218.0 6359/218.5 6374/219.0 6389/219.5 6404/220.0 6419/220.5 6434/221.0 6449/221.5 6464/222.0 6479/222.5 6494/223.0 6509/223.5 6524/224.0 6539/224.5 6554/225.0 6569/225.5 6584/226.0 6599/226.5 6614/227.0 6629/227.5 6644/228.0 6659/228.5 6674/229.0 6689/229.5 6704/230.0 6719/230.5 6734/231.0 6749/231.5 6764/232.0 6779/232.5 6794/233.0 6809/233.5 6824/234.0 6839/234.5 6854/235.0 6869/235.5 6884/236.0 6899/236.5 6914/237.0 6929/237.5 6944/238.0 6959/238.5 6974/239.0 6989/239.5 7004/240.0 7019/240.5 7034/241.0 7049/241.5 7064/242.0 7079/242.5 7094/243.0 7109/243.5 7124/244.0 7139/244.5 7154/245.0 7169/245.5 7184/246.0 7199/246.5 7214/247.0 7229/247.5 7244/248.0 7259/248.5 7274/249.0 7289/249.5 7304/250.0 7319/250.5 7334/251.0 7349/251.5 7364/252.0 7379/252.5 7394/253.0 7409/253.5 7424/254.0 7439/254.5 7454/255.0 7469/255.5 7484/256.0 7499/256.5 7514/257.0 7529/257.5 7544/258.0 7559/258.5 7574/259.0 7589/259.5 7604/260.0 7619/260.5 7634/261.0 7649/261.5 7664/262.0 7679/262.5 7694/263.0 7709/263.5 7724/264.0 7739/264.5 7754/265.0 7769/265.5 7784/266.0 7799/266.5 7814/267.0 7829/267.5 7844/268.0 7859/268.5 7874/269.0 7889/269.5 7904/270.0 7919/270.5 7934/271.0 7949/271.5 7964/272.0 7979/272.5 7994/273.0 8009/273.5 8024/274.0 8039/274.5 8054/275.0 8069/275.5 8084/276.0 8099/276.5 8114/277.0 8129/277.5 8144/278.0 8159/278.5 8174/279.0 8189/279.5 8204/280.0 8219/280.5 8234/281.0 8249/281.5 8264/282.0 8279/282.5 8294/283.0 8309/283.5 8324/284.0 8339/284.5 8354/285.0 8369/285.5 8384/286.0 8399/286.5 8414/287.0 8429/287.5 8444/288.0 8459/288.5 8474/289.0 8489/289.5 8504/290.0 8519/290.5 8534/291.0 8549/291.5 8564/292.0 8579/292.5 8594/293.0 8609/293.5 8624/294.0 8639/294.5 8654/295.0 8669/295.5 8684/296.0 8699/296.5 8714/297.0 8729/297.5 8744/298.0 8759/298.5 8774/299.0 8789/299.5 8804/300.0 8819/300.5 8834/301.0 8849/301.5 8864/302.0 8879/302.5 8894/303.0 8909/303.5 8924/304.0 8939/304.5 8954/305.0 8969/305.5 8984/306.0 8999/306.5 9014/307.0 9029/307.5 9044/308.0 9059/308.5 9074/309.0 9089/309.5 9104/310.0 9119/310.5 9134/311.0 9149/311.5 9164/312.0 9179/312.5 9194/313.0 9209/313.5 9224/314.0 9239/314.5 9254/315.0 9269/315.5 9284/316.0 9299/316.5 9314/317.0 9329/317.5 9344/318.0 9359/318.5 9374/319.0 9389/319.5 9404/320.0 9419/320.5 9434/321.0 9449/321.5 9464/322.0 9479/322.5 9494/323.0 9509/323.5 9524/324.0 9539/324.5 9554/325.0 9569/325.5 9584/326.0 9599/326.5 9614/327.0 9629/327.5 9644/328.0 9659/328.5 9674/329.0 9689/329.5 9704/330.0 9719/330.5 9734/331.0 9749/331.5 9764/332.0 9779/332.5 9794/333.0 9809/333.5 9824/334.0 9839/334.5 9854/335.0 9869/335.5 9884/336.0 9899/336.5 9914/337.0 9929/337.5 9944/338.0 9959/338.5 9974/339.0 9989/339.5 10004/340.0 10019/340.5 10034/341.0 10049/341.5 10064/342.0 10079/342.5 10094/343.0 10109/343.5 10124/344.0 10139/344.5 10154/345.0 10169/345.5 10184/346.0 10199/346.5 10214/347.0 10229/347.5 10244/348.0 10259/348.5 10274/349.0 10289/349.5 10304/350.0 10319/350.5 10334/351.0 10349/351.5 10364/352.0 10379/352.5 10394/353.0 10409/353.5 10424/354.0 10439/354.5 10454/355.0 10469/355.5 10484/356.0 10499/356.5 10514/357.0 10529/357.5 10544/358.0 10559/358.5 10574/359.0 10589/359.5 10604/360.0 10619/360.5 10634/361.0 10649/361.5 10664/362.0 10679/362.5 10694/363.0 10709/363.5 10724/364.0 10739/364.5 10754/365.0 10769/365.5 10784/366.0 10799/366.5 10814/367.0 10829/367.5 10844/368.0 10859/368.5 10874/369.0 10889/369.5 10904/370.0 10919/370.5 10934/371.0 10949/371.5 10964/372.0 10979/372.5 10994/373.0 11009/373.5 11024/374.0 11039/374.5 11054/375.0 11069/375.5 11084/376.0 11099/376.5 11114/377.0 11129/377.5 11144/378.0 11159/378.5 11174/379.0 11189/379.5 11204/380.0 11219/380.5 11234/381.0 11249/381.5 11264/382.0 11279/382.5 11294/383.0 11309/383.5 11324/384.0 11339/384.5 11354/385.0 11369/385.5 11384/386.0 11399/386.5 11414/387.0 11429/387.5 11444/388.0 11459/388.5 11474/389.0 11489/389.5 11504/390.0 11519/390.5 11534/391.0 11549/391.5 11564/392.0 11579/392.5 11594/393.0 11609/393.5 11624/394.0 11639/394.5 11654/395.0 11669/395.5 11684/396.0 11699/396.5 11714/397.0 11729/397.5 11744/398.0 11759/398.5 11774/399.0 11789/399.5 11804/400.0 11819/400.5 11834/401.0 11849/401.5 11864/402.0 11879/402.5 11894/403.0 11909/403.5 11924/404.0 11939/404.5 11954/405.0 11969/405.5 11984/406.0 11999/406.5 12014/407.0 12029/407.5 12044/408.0 12059/408.5 12074/409.0 12089/409.5 12104/410.0 12119/410.5 12134/411.0 12149/411.5 12164/412.0 12179/412.5 12194/413.0 12209/413.5 12224/414.0 12239/414.5 12254/415.0 12269/415.5 12284/416.0 12299/416.5 12314/417.0 12329/417.5 12344/418.0 12359/418.5 12374/419.0 12389/419.5 12404/420.0 12419/420.5 12434/421.0 12449/421.5 12464/422.0 12479/422.5 12494/423.0 12509/423.5 12524/424.0 12539/424.5 12554/425.0 12569/425.5 12584/426.0 12599/426.5 12614/427.0 12629/427.5 12644/428.0 12659/428.5 12674/429.0 12689/429.5 12704/430.0 12719/430.5 12734/431.0 12749/431.5 12764/432.0 12779/432.5 12794/433.0 12809/433.5 12824/434.0 12839/434.5 12854/435.0 12869/435.5 12884/436.0 12899/436.5 12914/437.0 12929/437.5 12944/438.0 12959/438.5 12974/439.0 12989/439.5 13004/440.0 13019/440.5 13034/441.0 13049/441.5 13064/442.0 13079/442.5 13094/443.0 13109/443.5 13124/444.0 13139/444.5 13154/445.0 13169/445.5 13184/446.0 13199/446.5 13214/447.0 13229/447.5 13244/448.0 13259/448.5 13274/449.0 13289/449.5 13304/450.0 13319/450.5 13334/451.0 13349/451.5 13364/452.0 13379/452.5 13394/453.0 13409/453.5 13424/454.0 13439/454.5 13454/455.0 13469/455.5 13484/456.0 13499/456.5 13514/457.0 13529/457.5 13544/458.0 13559/458.5 13574/459.0 13589/459.5 13604/460.0 13619/460.5 13634/461.0 13649/461.5 13664/462.0 13679/462.5 13694/463.0 13709/463.5 13724/464.0 13739/464.5 13754/465.0 13769/465.5 13784/466.0 13799/466.5 13814/467.0 13829/467.5 13844/468.0 13859/468.5 13874/469.0 13889/469.5 13904/470.0 13919/470.5 13934/471.0 13949/471.5 13964/472.0 13979/472.5 13994/473.0 14009/473.5 14024/474.0 14039/474.5 14054/475.0 14069/475.5 14084/476.0 14099/476.5 14114/477.0 14129/477.5 14144/478.0 14159/478.5 14174/479.0 14189/479.5 14204/480.0 14219/480.5 14234/481.0 14249/481.5 14264/482.0 14279/482.5 14294/483.0 14309/483.5 14324/484.0 14339/484.5 14354/485.0 14369/485.5 14384/486.0 14399/486.5 14414/487.0 14429/487.5 14444/488.0 14459/488.5 14474/489.0 14489/489.5 14504/490.0 14519/490.5 14534/491.0 14549/491.5 14564/492.0 14579/492.5 14594/493.0 14609/493.5 14624/494.0 14639/494.5 14654/495.0 14669/495.5 14684/496.0 14699/496.5 14714/497.0 14729/497.5 14744/498.0 14759/498.5 14774/499.0 14789/499.5 14804/500.0 14819/500.5 14834/501.0 14849/501.5 14864/502.0 14879/502.5 14894/503.0 14909/503.5 14924/504.0 14939/504.5 14954/505.0 14969/505.5 14984/506.0 14999/506.5 15014/507.0									

SHORTCUTTED
RMS VEH ACC IN 9'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 31.0 FT FROM RL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.300/ 8.3	.346/ 8.3	.454/ 8.3	.583/ 8.3	.704/ 8.3	.799/ 8.3	.858/ 8.3	.875/ 8.3	.851/ 8.3	.794/ 8.3	.716/ 8.3	.645/ 8.3	.615/ 8.5
	9	.315/10.5	.341/10.5	.407/10.5	.465/ 8.3	.559/ 7.0	.686/ 6.7	.722/ 6.7	.753/ 6.7	.758/ 6.8	.741/ 7.0	.709/ 7.1	.680/ 7.1	.668/ 7.1
	11	.296/11.2	.310/11.2	.351/11.2	.408/10.8	.471/10.1	.530/ 7.5	.579/ 7.1	.612/ 7.3	.629/ 7.3	.631/ 7.5	.623/ 7.7	.613/ 7.7	.609/ 7.7
	13	.281/11.6	.270/11.6	.297/11.6	.335/11.2	.380/10.8	.424/ 8.7	.463/ 7.7	.493/ 7.7	.512/ 7.7	.521/ 7.9	.523/ 8.1	.521/ 8.1	.520/ 8.1
	15	.266/12.1	.232/12.1	.250/12.1	.277/12.1	.319/11.5	.344/10.8	.375/ 8.5	.401/ 8.1	.419/ 8.1	.429/ 8.1	.436/ 8.3	.436/ 8.3	.436/ 8.3
	17	.194/12.8	.198/12.8	.211/12.8	.232/12.8	.257/12.1	.283/11.2	.304/ 8.7	.320/ 8.3	.346/ 8.3	.356/ 8.3	.362/ 8.5	.364/ 8.5	.365/ 8.5
	19	.167/13.4	.170/13.1	.180/13.1	.196/13.1	.216/12.6	.237/11.6	.257/10.8	.275/ 8.3	.289/ 8.3	.299/ 8.3	.304/ 8.5	.307/ 8.7	.308/ 8.7
10	21	.145/13.4	.147/13.4	.155/13.4	.168/13.4	.183/13.1	.201/12.6	.218/11.2	.233/ 8.5	.245/ 8.5	.253/ 8.5	.258/ 8.7	.261/ 8.7	.262/ 8.7
	7	.185/12.8	.233/ 8.5	.349/ 6.3	.493/ 5.7	.638/ 5.7	.753/ 5.7	.853/ 5.7	.903/ 5.7	.910/ 6.3	.878/ 6.3	.820/ 6.3	.760/ 6.4	.734/ 6.5
	9	.199/14.3	.228/13.7	.305/13.7	.413/ 6.7	.532/ 6.3	.646/ 6.3	.742/ 6.4	.812/ 6.7	.852/ 6.8	.865/ 7.0	.858/ 7.1	.843/ 7.1	.836/ 7.1
	11	.192/14.3	.210/14.0	.260/14.0	.336/13.7	.426/ 6.7	.518/ 6.8	.602/ 7.0	.670/ 7.1	.720/ 7.3	.750/ 7.5	.764/ 7.7	.768/ 7.7	.768/ 7.7
	13	.174/14.6	.186/14.6	.220/14.3	.275/14.0	.343/13.7	.415/ 7.1	.481/ 7.5	.541/ 7.9	.590/ 7.7	.622/ 7.9	.642/ 7.9	.652/ 8.1	.655/ 8.1
	15	.156/15.0	.162/15.0	.187/15.0	.228/14.3	.279/14.3	.336/ 8.3	.391/ 7.7	.441/ 7.9	.482/ 8.1	.512/ 8.1	.532/ 8.3	.543/ 8.3	.546/ 8.3
	17	.135/15.3	.141/15.3	.160/15.3	.191/15.0	.231/14.3	.276/12.9	.322/ 8.7	.363/ 8.1	.398/ 8.3	.424/ 8.3	.442/ 8.3	.453/ 8.3	.456/ 8.3
15	19	.118/16.1	.123/16.1	.137/15.7	.162/15.3	.194/14.6	.231/13.7	.268/ 8.3	.302/ 8.3	.332/ 8.3	.355/ 8.5	.371/ 8.5	.380/ 8.5	.383/ 8.5
	21	.104/16.5	.108/16.1	.119/16.1	.139/15.7	.165/15.3	.196/14.3	.226/ 8.5	.255/ 8.3	.280/ 8.3	.300/ 8.5	.314/ 8.5	.322/ 8.5	.325/ 8.7
	7	.119/14.3	.168/10.5	.291/ 6.8	.452/ 6.3	.619/ 5.7	.768/ 5.7	.885/ 5.7	.960/ 6.3	.988/ 6.3	.972/ 6.3	.924/ 6.4	.870/ 6.5	.845/ 6.5
	9	.126/17.5	.158/14.3	.247/14.3	.375/ 6.7	.522/ 6.4	.666/ 6.4	.795/ 6.7	.896/ 6.7	.966/ 6.7	.1003/ 7.0	.1013/ 7.1	.1010/ 7.1	.1007/ 7.1
	11	.124/17.5	.144/17.5	.206/17.5	.301/ 7.1	.416/ 6.7	.537/ 6.8	.651/ 6.8	.749/ 7.1	.826/ 7.3	.880/ 7.3	.913/ 7.5	.928/ 7.5	.933/ 7.5
	13	.115/20.3	.129/20.3	.173/17.5	.244/14.3	.333/ 7.3	.429/ 7.1	.523/ 7.3	.608/ 7.5	.679/ 7.7	.733/ 7.7	.769/ 7.9	.789/ 7.9	.795/ 7.9
	15	.104/20.3	.114/20.3	.147/20.3	.200/17.5	.270/ 7.3	.347/ 7.3	.423/ 7.3	.495/ 7.7	.555/ 7.9	.603/ 8.1	.636/ 8.1	.656/ 8.3	.662/ 8.3
20	17	.093/20.3	.101/20.3	.126/20.3	.167/20.3	.222/14.3	.284/ 7.5	.347/ 7.7	.406/ 7.9	.458/ 8.1	.499/ 8.3	.528/ 8.3	.545/ 8.3	.551/ 8.3
	19	.083/20.3	.089/20.3	.104/20.3	.122/20.3	.156/17.5	.207/ 7.5	.249/ 7.7	.288/ 7.9	.318/ 8.1	.341/ 8.3	.361/ 8.5	.366/ 8.5	.369/ 8.5
	21	.075/20.3	.079/20.3	.095/20.3	.122/20.3	.158/17.5	.200/14.3	.244/ 7.9	.285/ 8.1	.322/ 8.3	.351/ 8.5	.373/ 8.5	.386/ 8.5	.390/ 8.5
	7	.083/13.4	.133/13.4	.263/ 7.7	.441/ 5.7	.640/ 5.7	.804/ 5.7	.944/ 5.7	1.040/ 6.3	1.086/ 6.3	.984/ 6.4	.845/ 6.5	.695/ 6.5	.573/ 6.5
	9	.083/13.4	.118/13.4	.218/13.4	.367/ 5.7	.540/ 6.3	.715/ 6.3	.876/ 6.3	1.009/ 6.7	1.107/ 6.8	1.168/ 7.0	1.198/ 7.0	1.206/ 7.1	1.201/ 7.1
	11	.081/19.0	.105/19.0	.177/13.4	.291/ 7.7	.433/ 6.3	.579/ 6.4	.723/ 6.7	.852/ 7.0	.957/ 7.1	1.036/ 7.3	1.087/ 7.3	1.115/ 7.3	1.124/ 7.3
	13	.076/23.3	.093/23.3	.146/19.0	.233/13.4	.342/ 6.4	.462/ 6.7	.582/ 7.1	.693/ 7.1	.788/ 7.3	.863/ 7.5	.916/ 7.5	.946/ 7.7	.956/ 7.7
25	15	.071/23.3	.083/23.3	.123/23.3	.190/13.4	.276/ 6.4	.372/ 7.1	.470/ 7.1	.563/ 7.3	.644/ 7.5	.709/ 7.7	.757/ 7.7	.785/ 7.7	.794/ 7.7
	17	.065/26.2	.074/26.2	.105/23.3	.157/14.0	.226/13.4	.304/ 7.1	.384/ 7.3	.461/ 7.5	.529/ 7.7	.585/ 7.7	.626/ 7.9	.651/ 7.9	.659/ 7.9
	19	.058/26.2	.066/26.2	.091/26.2	.133/14.0	.183/13.4	.253/ 7.3	.319/ 7.3	.383/ 7.5	.440/ 7.7	.487/ 7.9	.522/ 7.9	.544/ 8.1	.551/ 8.1
	21	.054/26.2	.060/26.2	.079/26.2	.114/23.3	.160/19.0	.213/ 7.3	.268/ 7.5	.322/ 7.5	.371/ 7.7	.411/ 7.9	.440/ 8.1	.459/ 8.1	.465/ 8.1
	7	.084/ 8.7	.125/ 8.7	.254/ 5.7	.450/ 5.7	.690/ 5.7	.856/ 6.3	1.018/ 6.3	1.132/ 6.3	1.192/ 6.4	.988/ 6.5	.845/ 6.5	.695/ 6.5	.573/ 6.5
	9	.080/16.5	.102/16.5	.210/16.5	.379/ 6.3	.549/ 6.3	.740/ 6.4	.981/ 6.7	1.148/ 6.7	1.276/ 7.0	1.363/ 7.1	1.412/ 7.1	1.434/ 7.1	1.439/ 7.3
	11	.080/16.5	.085/16.5	.167/16.5	.299/ 6.3	.461/ 6.3	.640/ 6.4	.818/ 6.8	.981/ 7.1	1.118/ 7.3	1.225/ 7.3	1.298/ 7.3	1.341/ 7.3	1.355/ 7.3
30	13	.055/16.5	.073/16.5	.132/16.5	.237/ 6.3	.366/ 6.5	.511/ 6.8	.659/ 7.1	.799/ 7.1	.922/ 7.3	1.022/ 7.3	1.094/ 7.5	1.138/ 7.5	1.151/ 7.5
	15	.051/16.5	.065/16.5	.115/16.5	.191/16.5	.274/ 6.3	.359/ 6.5	.436/ 6.8	.511/ 7.1	.581/ 7.3	.631/ 7.5	.671/ 7.5	.692/ 7.5	.695/ 7.5
	17	.047/13.1	.058/16.5	.094/16.5	.157/16.5	.240/ 6.3	.335/ 6.8	.434/ 7.1	.530/ 7.3	.613/ 7.5	.681/ 7.7	.745/ 7.7	.779/ 7.7	.790/ 7.7
	19	.043/13.1	.052/13.1	.081/16.5	.131/16.5	.199/ 6.7	.277/ 6.8	.359/ 7.1	.440/ 7.3	.513/ 7.5	.574/ 7.5	.620/ 7.5	.649/ 7.7	.659/ 7.7
	21	.040/13.1	.047/13.1	.070/13.1	.112/16.5	.168/16.5	.233/ 6.8	.301/ 7.1	.369/ 7.3	.431/ 7.5	.483/ 7.5	.522/ 7.7	.547/ 7.7	.555/ 7.7

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORT-CUTTED
RMS LAT OUSP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK HULLS ETC - 40.0 FT FORWARD OF AP AND 30.0 FT FROM HL

V		T	SHIP HEADING ANGLE IN DEGREES											
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	0.96/ 8.7	1.05/ 8.7	1.23/ 8.7	1.43/ 8.7	1.59/ 8.3	1.67/ 8.3	1.67/ 8.3	1.58/ 7.9	1.41/ 7.7	1.20/ 7.3	0.97/ 7.1	0.79/ 7.1	0.71/ 7.1
	9	1.22/ 8.7	1.29/ 8.7	1.46/ 8.7	1.65/ 8.7	1.81/ 8.7	1.89/ 8.7	1.89/ 8.7	1.81/ 8.5	1.63/ 8.5	1.44/ 8.5	1.23/ 8.3	1.05/ 8.3	0.99/ 8.3
	11	1.35/12.6	1.41/12.6	1.56/12.6	1.74/12.1	1.89/12.1	1.95/12.1	1.94/ 8.7	1.85/ 8.7	1.69/ 8.5	1.49/ 8.5	1.28/ 8.5	1.12/ 8.5	1.05/ 8.5
	13	1.41/14.0	1.47/14.0	1.62/14.0	1.79/14.0	1.93/14.0	2.00/13.7	2.00/13.7	1.89/13.4	1.73/13.1	1.52/13.1	1.31/12.8	1.14/12.8	1.07/12.8
	15	1.44/15.7	1.50/15.7	1.65/15.7	1.83/15.7	1.97/15.7	2.05/15.3	2.04/15.3	1.95/15.3	1.78/15.0	1.57/15.0	1.35/14.6	1.17/14.6	1.10/14.6
	17	1.43/17.5	1.50/17.5	1.66/17.5	1.84/17.5	1.99/17.5	2.08/17.0	2.07/17.0	1.98/17.0	1.81/17.0	1.60/17.0	1.37/16.5	1.19/16.5	1.12/16.5
10	7	1.11/12.1	1.19/12.1	1.36/ 8.7	1.55/ 8.7	1.67/ 8.5	1.72/ 8.5	1.68/ 8.5	1.55/ 8.5	1.35/ 8.3	1.11/ 7.5	0.86/ 7.3	0.67/ 7.1	0.60/ 7.1
	9	1.51/13.1	1.57/13.1	1.71/13.1	1.86/12.8	1.96/12.1	1.99/12.1	1.93/ 8.7	1.78/ 8.7	1.58/ 8.7	1.34/ 8.5	1.10/ 8.5	0.92/ 8.5	0.86/ 8.7
	11	1.69/14.0	1.73/14.0	1.85/13.7	1.99/13.4	2.08/13.4	2.09/13.4	2.01/12.6	1.85/12.6	1.64/ 9.0	1.40/ 9.0	1.16/ 9.2	0.94/ 9.2	0.87/ 9.2
	13	1.73/15.3	1.77/15.3	1.90/15.0	2.03/14.6	2.12/14.3	2.06/14.3	2.06/14.3	1.90/14.0	1.68/13.7	1.44/13.4	1.21/13.1	1.03/12.8	0.96/ 9.2
	15	1.71/16.5	1.76/16.5	1.89/16.5	2.04/16.1	2.14/16.1	2.17/15.7	2.10/15.7	1.95/15.7	1.73/15.3	1.48/15.0	1.24/14.6	1.06/14.6	0.99/14.6
	17	1.66/18.5	1.72/18.5	1.86/18.5	2.02/18.0	2.14/18.0	2.18/17.5	2.12/17.5	1.98/17.5	1.77/17.0	1.52/17.0	1.27/17.0	1.08/16.5	1.00/16.5
15	7	1.18/17.5	1.26/17.5	1.43/17.5	1.61/17.5	1.77/17.5	1.84/17.5	1.84/17.5	1.77/17.5	1.61/17.5	1.43/17.5	1.26/17.5	1.10/17.5	1.03/17.5
	9	1.61/19.6	1.67/19.6	1.82/19.6	1.99/19.6	2.12/19.6	2.17/19.6	2.13/19.0	1.99/19.0	1.79/18.5	1.54/18.0	1.30/17.5	1.10/17.5	1.02/17.5
	11	1.57/22.4	1.64/22.4	1.79/21.7	1.97/20.9	2.11/20.9	2.17/20.9	2.14/20.9	2.01/20.3	1.81/20.3	1.57/20.3	1.32/20.3	1.12/19.6	1.04/19.6
	13	1.89/17.5	1.92/17.5	2.05/17.5	2.20/17.5	2.31/17.5	2.37/17.5	2.31/17.5	2.18/17.5	1.97/17.5	1.72/17.5	1.46/17.0	1.19/17.0	1.09/17.0
	15	2.07/17.5	2.11/17.5	2.22/17.5	2.33/17.5	2.41/17.5	2.46/17.5	2.41/17.5	2.28/17.5	2.07/17.5	1.82/17.5	1.57/17.0	1.32/17.0	1.09/17.0
	17	1.96/19.6	2.01/19.6	2.13/17.5	2.26/17.5	2.36/17.5	2.43/17.5	2.37/17.5	2.21/17.5	2.01/17.5	1.76/17.0	1.49/17.0	1.22/17.0	1.01/17.0
20	7	1.27/19.0	1.32/19.0	1.45/19.0	1.61/19.0	1.75/19.0	1.84/19.0	1.84/19.0	1.75/19.0	1.61/19.0	1.45/19.0	1.27/19.0	1.10/19.0	1.03/19.0
	9	1.35/19.0	1.39/19.0	1.51/19.0	1.67/19.0	1.81/19.0	1.89/19.0	1.89/19.0	1.81/19.0	1.67/19.0	1.45/19.0	1.27/19.0	1.10/19.0	1.03/19.0
	11	1.32/19.0	1.36/19.0	1.48/19.0	1.64/19.0	1.78/19.0	1.86/19.0	1.86/19.0	1.78/19.0	1.64/19.0	1.48/19.0	1.32/19.0	1.16/19.0	1.09/19.0
	13	1.84/23.3	1.88/23.3	1.99/23.3	2.15/23.3	2.29/23.3	2.37/23.3	2.37/23.3	2.29/23.3	2.15/23.3	1.99/23.3	1.84/23.3	1.68/23.3	1.52/23.3
	15	2.00/23.3	2.04/23.3	2.15/23.3	2.29/23.3	2.41/23.3	2.46/23.3	2.41/23.3	2.29/23.3	2.15/23.3	1.99/23.3	1.84/23.3	1.68/23.3	1.52/23.3
	17	1.87/19.6	1.92/19.6	2.05/19.6	2.19/19.6	2.29/19.6	2.37/19.6	2.37/19.6	2.29/19.6	2.19/19.6	2.05/19.6	1.87/19.6	1.70/19.6	1.53/19.6
25	7	1.36/16.5	1.41/16.5	1.54/16.5	1.70/16.5	1.84/16.5	1.91/16.5	1.91/16.5	1.84/16.5	1.70/16.5	1.54/16.5	1.36/16.5	1.19/16.5	1.12/16.5
	9	1.83/16.5	1.88/16.5	1.99/16.5	2.15/16.5	2.29/16.5	2.37/16.5	2.37/16.5	2.29/16.5	2.15/16.5	1.99/16.5	1.83/16.5	1.66/16.5	1.50/16.5
	11	1.59/24.2	1.64/24.2	1.75/24.2	1.91/24.2	2.05/24.2	2.13/24.2	2.13/24.2	2.05/24.2	1.91/24.2	1.75/24.2	1.59/24.2	1.42/24.2	1.26/24.2
	13	1.29/24.2	1.33/24.2	1.44/24.2	1.59/24.2	1.73/24.2	1.81/24.2	1.81/24.2	1.73/24.2	1.59/24.2	1.44/24.2	1.29/24.2	1.12/24.2	1.05/24.2
	15	1.04/24.2	1.07/24.2	1.18/24.2	1.33/24.2	1.47/24.2	1.55/24.2	1.55/24.2	1.47/24.2	1.33/24.2	1.18/24.2	1.04/24.2	0.87/24.2	0.80/24.2
	17	1.03/24.2	1.06/24.2	1.17/24.2	1.32/24.2	1.46/24.2	1.54/24.2	1.54/24.2	1.46/24.2	1.32/24.2	1.17/24.2	1.03/24.2	0.86/24.2	0.79/24.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SMURTHCROFTED
HMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK BULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	.073/ 8.7	.082/ 8.7	.101/ 8.7	.121/ 8.3	.139/ 8.3	.149/ 7.9	.152/ 7.5	.147/ 7.1	.135/ 7.0	.116/ 6.8	.095/ 6.7	.077/ 6.7	.069/ 6.7	.063/ 8.1	.063/ 8.1	.063/ 8.1
9	9	.081/ 8.7	.088/ 8.7	.104/ 8.7	.122/ 8.7	.138/ 8.7	.148/ 8.5	.152/ 8.5	.148/ 8.3	.137/ 8.3	.122/ 8.3	.104/ 8.3	.089/ 8.3	.083/ 8.3	.079/ 8.5	.079/ 8.5	.079/ 8.5
11	11	.079/11.6	.084/ 8.7	.097/ 8.7	.112/ 8.7	.125/ 8.7	.133/ 8.7	.136/ 8.5	.133/ 8.5	.124/ 8.5	.111/ 8.5	.096/ 8.5	.084/ 8.5	.079/ 8.5	.079/ 8.5	.079/ 8.5	.079/ 8.5
13	13	.074/13.1	.078/13.1	.089/13.1	.101/12.8	.112/12.8	.119/ 8.7	.121/ 8.5	.118/ 8.5	.110/ 8.5	.099/ 8.5	.087/ 8.5	.076/ 8.5	.071/ 8.5	.071/ 8.5	.071/ 8.5	.071/ 8.5
15	15	.068/14.3	.072/14.3	.081/14.3	.092/14.0	.101/14.0	.107/14.0	.109/14.0	.106/13.7	.099/13.7	.089/13.4	.077/ 8.5	.068/ 8.5	.064/ 8.5	.064/ 8.5	.064/ 8.5	.064/ 8.5
17	17	.062/15.7	.066/15.7	.074/15.7	.084/15.7	.092/15.7	.098/15.3	.099/15.3	.096/15.3	.090/15.0	.081/15.0	.070/14.6	.062/14.6	.058/14.6	.058/14.6	.058/14.6	.058/14.6
19	19	.057/17.0	.060/17.0	.067/17.0	.076/17.0	.084/17.0	.089/17.0	.091/17.0	.088/17.0	.082/17.0	.074/16.5	.064/16.5	.056/16.5	.053/16.5	.053/16.5	.053/16.5	.053/16.5
21	21	.052/19.0	.055/19.0	.062/19.0	.070/18.5	.077/18.5	.082/18.0	.083/18.0	.081/18.0	.076/18.0	.068/17.5	.059/17.5	.052/17.0	.049/17.0	.049/17.0	.049/17.0	.049/17.0
10	7	.070/ 8.7	.079/ 8.7	.098/ 8.5	.119/ 8.5	.135/ 8.5	.146/ 8.5	.148/ 8.5	.143/ 7.0	.130/ 7.0	.111/ 6.8	.090/ 6.7	.072/ 6.7	.064/ 6.7	.064/ 6.7	.064/ 6.7	.064/ 6.7
9	9	.082/13.1	.089/12.8	.104/12.1	.121/ 8.7	.135/ 8.7	.145/ 8.5	.147/ 8.5	.143/ 8.5	.132/ 8.5	.117/ 8.3	.099/ 8.1	.083/ 8.1	.078/ 8.1	.078/ 8.1	.078/ 8.1	.078/ 8.1
11	11	.083/13.4	.088/13.4	.099/13.4	.113/13.4	.125/12.6	.132/ 8.7	.134/ 8.7	.130/ 8.7	.121/ 8.7	.108/ 8.7	.093/ 8.7	.081/ 9.0	.077/ 9.0	.077/ 9.0	.077/ 9.0	.077/ 9.0
13	13	.078/14.3	.082/14.3	.092/14.0	.103/13.4	.113/13.4	.119/13.4	.121/13.1	.117/12.6	.108/ 8.7	.097/ 9.0	.084/ 9.0	.074/ 9.0	.069/ 9.2	.069/ 9.2	.069/ 9.2	.069/ 9.2
15	15	.072/15.3	.075/15.3	.084/15.0	.094/15.0	.103/14.5	.109/14.5	.109/14.3	.105/14.0	.097/14.0	.087/13.7	.075/ 9.0	.066/ 9.2	.062/ 9.2	.062/ 9.2	.062/ 9.2	.062/ 9.2
17	17	.065/16.5	.068/16.5	.076/16.1	.086/16.1	.094/15.7	.098/15.7	.099/15.7	.096/15.3	.089/15.3	.079/15.0	.068/15.0	.060/14.6	.056/14.6	.056/14.6	.056/14.6	.056/14.6
19	19	.059/17.5	.062/17.5	.070/17.5	.078/17.5	.085/17.5	.090/17.5	.091/17.5	.087/17.0	.081/17.0	.072/17.0	.062/16.5	.054/16.5	.051/16.5	.051/16.5	.051/16.5	.051/16.5
21	21	.054/19.0	.057/19.0	.064/19.0	.072/18.5	.078/18.5	.083/18.5	.083/18.0	.080/18.0	.074/18.0	.066/18.0	.057/17.5	.050/17.5	.047/17.0	.047/17.0	.047/17.0	.047/17.0
15	7	.074/14.3	.082/14.3	.099/14.3	.117/14.3	.132/14.3	.141/14.3	.143/ 7.5	.137/ 7.5	.124/ 7.3	.106/ 7.1	.085/ 6.8	.067/ 6.7	.060/ 6.7	.060/ 6.7	.060/ 6.7	.060/ 6.7
9	9	.089/17.5	.095/17.5	.108/17.5	.123/17.5	.135/17.5	.143/17.5	.146/17.5	.143/ 8.3	.127/ 8.3	.111/ 8.1	.094/ 8.1	.079/ 8.1	.073/ 8.1	.073/ 8.1	.073/ 8.1	.073/ 8.1
11	11	.089/17.5	.093/17.5	.104/17.5	.116/17.5	.127/17.5	.133/17.5	.133/17.3	.128/ 8.7	.118/ 8.7	.104/ 8.7	.090/ 8.7	.078/ 9.0	.073/ 9.2	.073/ 9.2	.073/ 9.2	.073/ 9.2
13	13	.083/17.5	.086/17.5	.096/17.5	.109/17.5	.115/17.5	.120/17.5	.120/17.3	.115/17.3	.106/17.3	.094/ 9.2	.081/ 9.5	.071/ 9.5	.067/ 9.5	.067/ 9.5	.067/ 9.5	.067/ 9.5
15	15	.075/17.5	.079/17.5	.087/17.5	.097/17.5	.105/17.5	.109/17.5	.109/17.3	.104/17.3	.096/17.3	.085/17.0	.074/13.7	.064/10.1	.061/10.1	.061/10.1	.061/10.1	.061/10.1
17	17	.068/17.5	.071/17.5	.079/17.5	.088/17.5	.095/17.5	.099/17.5	.099/17.5	.095/17.3	.087/17.3	.077/15.3	.067/15.0	.058/15.0	.055/14.6	.055/14.6	.055/14.6	.055/14.6
19	19	.061/17.5	.064/17.5	.071/17.5	.080/17.5	.087/17.5	.091/17.5	.091/17.5	.087/17.5	.080/17.0	.071/17.0	.061/17.0	.053/16.5	.050/16.5	.050/16.5	.050/16.5	.050/16.5
21	21	.056/17.5	.059/17.5	.065/17.5	.073/17.5	.079/17.5	.083/17.5	.083/17.5	.080/18.0	.073/18.0	.065/18.0	.056/18.0	.048/17.5	.046/17.5	.046/17.5	.046/17.5	.046/17.5
20	7	.079/13.4	.086/13.4	.103/13.4	.121/13.4	.136/13.4	.143/13.4	.143/13.4	.136/13.4	.121/13.4	.102/ 7.9	.082/ 6.7	.064/ 6.7	.057/ 6.7	.057/ 6.7	.057/ 6.7	.057/ 6.7
9	9	.091/19.0	.096/19.0	.110/19.0	.125/19.0	.137/19.0	.144/19.0	.144/19.0	.137/19.0	.124/19.0	.108/ 8.3	.090/ 8.3	.076/ 8.1	.070/ 8.1	.070/ 8.1	.070/ 8.1	.070/ 8.1
11	11	.089/19.0	.094/19.0	.105/19.0	.115/19.0	.124/19.0	.131/19.0	.131/19.0	.124/19.0	.116/19.0	.102/ 9.0	.087/ 9.0	.075/ 9.2	.070/ 9.2	.070/ 9.2	.070/ 9.2	.070/ 9.2
13	13	.083/19.0	.087/19.0	.096/19.0	.106/19.0	.117/19.0	.124/19.0	.124/19.0	.115/19.0	.105/19.0	.093/13.4	.080/10.1	.069/10.1	.065/10.1	.065/10.1	.065/10.1	.065/10.1
15	15	.075/23.3	.079/23.3	.088/19.0	.098/19.0	.106/19.0	.110/19.0	.109/19.0	.104/19.0	.095/19.0	.084/13.4	.072/11.2	.062/10.5	.059/10.5	.059/10.5	.059/10.5	.059/10.5
17	17	.068/23.3	.072/23.3	.080/19.0	.089/19.0	.096/19.0	.100/19.0	.099/19.0	.095/19.0	.086/19.0	.076/15.7	.065/15.3	.056/15.0	.053/11.2	.053/11.2	.053/11.2	.053/11.2
19	19	.062/23.3	.065/23.3	.072/23.3	.081/19.0	.088/19.0	.091/19.0	.091/19.0	.087/19.0	.079/19.0	.069/17.5	.059/17.0	.051/17.0	.048/17.0	.048/17.0	.048/17.0	.048/17.0
21	21	.057/23.3	.060/23.3	.066/23.3	.074/23.3	.080/19.0	.084/19.0	.084/19.0	.080/19.0	.073/19.0	.064/18.0	.054/18.0	.047/18.0	.044/18.0	.044/18.0	.044/18.0	.044/18.0
25	7	.067/16.5	.075/16.5	.093/16.5	.112/16.5	.127/16.5	.135/16.5	.136/16.5	.129/ 8.7	.116/ 8.7	.097/ 8.7	.077/ 6.7	.060/ 6.7	.053/ 6.7	.053/ 6.7	.053/ 6.7	.053/ 6.7
9	9	.076/16.5	.083/16.5	.099/16.5	.116/16.5	.129/16.5	.137/16.5	.137/16.5	.132/16.5	.120/16.5	.103/ 8.7	.086/ 8.7	.072/ 8.1	.066/ 7.9	.066/ 7.9	.066/ 7.9	.066/ 7.9
11	11	.077/16.5	.083/16.5	.096/16.5	.113/16.5	.122/16.5	.129/16.5	.129/16.5	.124/16.5	.113/16.5	.099/ 9.0	.084/ 9.2	.072/ 9.2	.067/ 9.2	.067/ 9.2	.067/ 9.2	.067/ 9.2
13	13	.075/16.5	.079/16.5	.091/16.5	.108/16.5	.117/16.5	.124/16.5	.124/16.5	.119/16.5	.103/16.5	.090/11.2	.077/10.5	.067/10.5	.063/10.5	.063/10.5	.063/10.5	.063/10.5
15	15	.071/20.2	.075/24.2	.084/16.5	.104/16.5	.109/16.5	.116/16.5	.116/16.5	.113/16.5	.094/16.5	.082/16.5	.070/11.6	.061/11.2	.057/11.2	.057/11.2	.057/11.2	.057/11.2
17	17	.066/24.2	.069/24.2	.074/24.2	.094/16.5	.099/16.5	.104/16.5	.104/16.5	.094/16.5	.085/16.5	.075/16.5	.064/15.3	.055/11.8	.052/11.8	.052/11.8	.052/11.8	.052/11.8
19	19	.061/24.2	.064/24.2	.072/24.2	.081/16.5	.084/16.5	.089/16.5	.089/16.5	.084/16.5	.076/16.5	.068/16.5	.058/16.5	.050/17.0	.047/17.0	.047/17.0	.047/17.0	.047/17.0
21	21	.057/29.9	.060/29.9	.067/24.2	.084/24.2	.088/24.2	.094/24.2	.094/24.2	.089/16.5	.072/16.5	.063/18.0	.053/18.0	.046/19.0	.043/19.0	.043/19.0	.043/19.0	.043/19.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

UNREQUESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

HELICOPTER DECK BULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM BL
(ACC. x 100)

SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165
5	9	.181/ 8.7	.210/ 8.7	.275/ 8.3	.348/ 7.9	.411/ 7.5	.455/ 7.0	.474/ 6.7	.467/ 6.5	.436/ 6.3	.380/ 6.3	.312/ 6.3	.248/ 6.3
	11	.179/ 8.7	.201/ 8.7	.251/ 8.3	.309/ 8.5	.361/ 8.5	.399/ 8.5	.417/ 8.3	.413/ 7.9	.389/ 7.7	.347/ 7.5	.296/ 7.5	.250/ 7.5
	13	.157/ 8.7	.173/ 8.7	.209/ 8.7	.255/ 8.7	.295/ 8.7	.328/ 8.5	.339/ 8.3	.338/ 8.3	.320/ 8.3	.289/ 8.3	.250/ 8.3	.217/ 8.3
	15	.134/ 8.7	.146/ 8.7	.175/ 8.7	.209/ 8.7	.240/ 8.5	.263/ 8.5	.275/ 8.5	.278/ 8.5	.260/ 8.3	.235/ 8.3	.206/ 8.3	.180/ 8.3
	17	.114/12.6	.123/ 8.7	.146/ 8.7	.173/ 8.7	.199/ 8.7	.211/ 8.5	.226/ 8.5	.225/ 8.5	.213/ 8.5	.194/ 8.3	.170/ 8.5	.149/ 8.5
	19	.098/13.4	.105/13.4	.124/13.4	.146/ 8.7	.166/ 8.7	.182/ 8.5	.189/ 8.5	.188/ 8.5	.178/ 8.5	.162/ 8.5	.142/ 8.5	.125/ 8.5
	21	.084/14.3	.090/14.3	.106/14.3	.124/14.3	.141/ 8.7	.156/ 8.5	.159/ 8.5	.159/ 8.5	.151/ 8.5	.137/ 8.5	.120/ 8.5	.106/ 8.5
10	7	.150/ 8.5	.180/ 8.5	.249/ 8.5	.324/ 8.5	.391/ 8.5	.440/ 8.7	.465/ 8.7	.463/ 8.4	.436/ 8.3	.385/ 8.3	.320/ 8.3	.257/ 8.3
	9	.152/12.1	.174/12.1	.225/ 8.5	.284/ 8.5	.340/ 8.5	.382/ 8.5	.408/ 8.3	.409/ 8.3	.389/ 7.3	.354/ 7.3	.305/ 7.3	.261/ 7.3
	11	.138/13.1	.154/13.1	.191/12.5	.236/ 8.5	.279/ 8.5	.313/ 8.5	.333/ 8.5	.337/ 8.5	.324/ 8.3	.296/ 8.3	.261/ 8.3	.224/ 8.3
	13	.121/13.7	.132/13.4	.160/13.4	.195/13.4	.229/ 8.7	.256/ 8.5	.271/ 8.7	.274/ 8.7	.264/ 8.5	.243/ 8.5	.215/ 8.5	.190/ 8.7
	15	.104/14.0	.113/14.0	.135/13.7	.163/13.4	.190/13.4	.211/ 8.7	.224/ 8.7	.226/ 8.7	.217/ 8.7	.200/ 8.7	.178/ 8.7	.158/ 9.0
	17	.089/14.3	.097/14.3	.115/14.5	.138/14.0	.160/14.0	.177/13.7	.187/ 8.7	.189/ 8.7	.181/ 8.7	.167/ 8.7	.148/ 9.0	.132/ 9.0
	19	.077/15.0	.083/15.0	.099/14.6	.118/14.6	.136/14.6	.150/14.6	.159/14.6	.160/ 8.7	.153/ 8.7	.141/ 8.7	.125/ 9.0	.106/ 9.0
	21	.067/15.3	.072/15.3	.086/15.3	.102/15.7	.117/15.7	.129/15.3	.136/15.3	.137/15.3	.131/ 8.7	.121/ 8.7	.107/ 9.0	.096/ 9.0
15	7	.125/14.3	.156/14.3	.222/14.3	.298/ 7.3	.367/ 7.1	.420/ 7.1	.450/ 7.0	.454/ 6.8	.432/ 6.7	.387/ 6.4	.325/ 6.3	.264/ 6.3
	9	.132/14.3	.153/14.3	.202/14.3	.262/14.3	.319/ 7.9	.368/ 7.7	.394/ 7.7	.402/ 7.5	.389/ 7.5	.354/ 7.3	.311/ 7.3	.268/ 7.1
	11	.122/17.5	.137/14.3	.174/14.3	.219/14.3	.265/14.3	.302/ 8.1	.326/ 8.1	.334/ 8.1	.325/ 8.1	.301/ 8.1	.267/ 8.1	.236/ 8.1
	13	.107/17.5	.119/17.5	.147/14.3	.183/14.3	.218/14.3	.246/14.3	.267/ 8.3	.273/ 8.5	.266/ 8.5	.244/ 8.5	.222/ 8.5	.198/ 8.7
	15	.093/17.5	.102/17.5	.125/17.5	.154/14.3	.182/14.3	.205/14.3	.221/14.3	.228/ 8.5	.220/ 8.7	.204/ 8.7	.184/ 9.0	.165/ 9.2
	17	.080/17.5	.088/17.5	.110/17.5	.130/17.5	.154/14.3	.173/14.3	.185/14.3	.189/14.3	.183/ 8.7	.171/ 9.0	.153/ 9.2	.138/ 9.2
	19	.070/17.5	.076/17.5	.092/17.5	.112/17.5	.131/17.5	.147/14.3	.157/14.3	.160/14.3	.155/14.3	.144/ 9.0	.129/ 9.2	.116/ 9.2
	21	.061/17.5	.066/17.5	.080/17.5	.097/17.5	.113/17.5	.126/17.5	.135/17.5	.137/15.3	.133/15.3	.123/ 9.0	.111/ 9.2	.099/ 9.5
20	7	.108/13.4	.138/13.4	.205/13.4	.282/13.4	.354/13.4	.419/13.4	.443/ 7.9	.452/ 7.7	.433/ 6.3	.391/ 6.3	.331/ 6.3	.272/ 6.3
	9	.110/13.4	.131/13.4	.183/13.4	.245/13.4	.306/13.4	.358/13.4	.390/ 8.1	.402/ 7.9	.392/ 7.9	.362/ 7.7	.318/ 7.3	.276/ 7.1
	11	.101/19.0	.117/19.0	.156/13.4	.205/13.4	.254/13.4	.295/13.4	.323/ 8.3	.335/ 8.3	.329/ 8.3	.307/ 8.3	.275/ 8.1	.245/ 8.1
	13	.090/19.0	.102/19.0	.133/19.0	.171/13.4	.210/13.4	.243/13.4	.265/13.4	.275/ 8.5	.271/ 8.5	.254/ 8.5	.229/ 8.7	.206/ 8.7
	15	.079/19.0	.088/19.0	.114/13.0	.144/13.0	.175/13.4	.202/13.4	.220/13.4	.227/13.4	.224/ 8.7	.210/ 9.0	.190/ 9.2	.172/ 9.2
	17	.069/19.0	.077/19.0	.107/19.0	.123/13.0	.148/13.4	.169/13.4	.186/13.4	.190/13.4	.187/ 9.0	.173/ 9.2	.159/ 9.5	.143/ 9.5
	19	.061/19.0	.068/19.0	.094/19.0	.105/19.0	.127/19.0	.146/19.0	.156/13.4	.161/13.4	.158/13.4	.148/ 9.2	.134/ 9.5	.121/10.1
	21	.054/23.3	.059/19.0	.074/19.0	.092/19.0	.109/19.0	.124/19.0	.134/19.0	.138/13.4	.135/13.4	.126/ 9.5	.114/ 9.8	.103/10.1
25	7	.080/16.5	.110/ 8.7	.175/ 8.7	.253/ 8.7	.327/ 8.7	.387/ 8.7	.426/ 8.7	.438/ 8.7	.426/ 6.3	.388/ 6.3	.333/ 6.3	.275/ 6.3
	9	.082/16.5	.104/16.5	.157/16.5	.222/16.5	.286/16.5	.347/16.5	.379/ 8.7	.396/ 8.7	.390/ 8.7	.362/ 7.9	.322/ 7.1	.281/ 7.1
	11	.078/16.5	.094/16.5	.136/16.5	.187/16.5	.239/16.5	.284/16.5	.316/16.5	.328/ 8.7	.329/ 8.7	.310/ 8.7	.280/ 7.9	.250/ 7.9
	13	.071/16.5	.084/16.5	.117/16.5	.157/16.5	.199/16.5	.235/16.5	.274/ 8.7	.278/ 8.7	.272/ 8.7	.254/ 8.7	.234/ 8.7	.212/ 9.0
	15	.064/16.5	.075/16.5	.101/16.5	.133/16.5	.167/16.5	.194/16.5	.217/16.5	.227/16.5	.225/ 8.7	.213/ 9.0	.195/ 9.2	.177/ 9.5
	17	.058/16.5	.068/16.5	.088/16.5	.114/16.5	.141/16.5	.165/16.5	.182/16.5	.190/16.5	.188/ 9.0	.178/ 9.2	.163/ 9.8	.148/10.1
	19	.052/24.2	.059/16.5	.077/16.5	.093/16.5	.121/16.5	.141/16.5	.155/16.5	.161/16.5	.159/16.5	.150/10.1	.137/10.5	.125/10.5
	21	.047/24.2	.053/24.2	.068/16.5	.085/16.5	.105/16.5	.122/16.5	.133/16.5	.138/16.5	.136/16.5	.129/16.5	.117/10.5	.108/10.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SMOOTHED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK HULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM BL

V T	SHIP HEADING ANGLE IN DEGREES															
	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	134/10.1	142/10.1	160/9.6	162/8.3	202/7.4	217/7.5	223/7.1	223/7.0	209/7.0	191/7.0	172/7.0	156/7.0	150/7.0	231/8.3	245/8.3	257/8.3
9	235/11.2	209/11.2	218/11.2	230/10.5	242/10.5	251/10.1	257/9.0	257/8.5	247/8.5	236/8.3	223/8.3	207/8.3	229/8.3	268/9.8	281/11.2	294/11.2
11	247/12.6	248/12.6	251/12.6	266/12.1	267/12.1	269/11.6	271/11.2	273/10.5	275/10.1	278/11.2	281/11.2	283/12.8	284/12.8	268/12.8	279/11.2	281/11.2
13	265/14.3	265/14.3	265/14.3	266/14.0	267/13.4	269/13.4	271/13.4	273/12.6	275/12.6	278/13.4	281/13.4	283/14.3	284/14.3	268/14.3	279/11.2	281/11.2
15	271/15.7	271/15.7	270/15.7	269/15.7	269/15.3	269/15.0	270/14.6	272/14.3	275/14.3	278/15.0	281/15.0	283/15.7	284/15.7	268/15.7	279/11.2	281/11.2
17	271/17.5	271/17.5	270/17.5	269/17.5	269/17.5	269/17.0	270/16.6	272/16.3	275/16.3	278/17.0	281/17.0	283/17.5	284/17.5	268/17.5	279/11.2	281/11.2
19	269/19.6	269/19.6	269/19.6	269/19.6	269/19.6	269/19.0	270/18.5	272/18.2	275/18.2	278/18.9	281/18.9	283/19.6	284/19.6	268/19.6	279/11.2	281/11.2
21	269/22.4	268/22.4	268/22.4	268/22.4	268/22.4	268/21.7	269/21.7	271/21.7	274/21.7	277/21.7	280/21.7	283/22.4	284/22.4	268/22.4	279/11.2	281/11.2
10	120/13.4	128/13.4	146/13.4	153/12.8	189/8.7	204/7.1	212/7.0	210/7.0	200/7.0	184/7.0	166/7.0	150/7.0	144/7.0	227/8.3	241/8.3	255/8.3
9	190/14.0	193/14.0	203/14.0	215/14.0	229/13.7	247/9.5	249/9.5	249/8.7	247/8.5	236/8.3	223/8.3	207/8.3	229/8.3	268/9.8	281/11.2	294/11.2
11	231/15.0	233/15.0	237/15.0	243/14.6	249/14.3	256/13.4	261/13.1	264/12.8	266/12.6	271/12.6	278/13.4	281/13.4	283/14.3	268/14.3	279/11.2	281/11.2
13	251/16.1	251/16.1	253/16.1	255/15.7	259/15.3	261/15.0	264/14.6	266/14.3	271/14.3	278/15.0	281/15.0	283/15.7	284/15.7	268/15.7	279/11.2	281/11.2
15	259/18.0	259/18.0	259/18.0	260/17.0	260/16.5	261/16.0	262/15.7	264/15.3	266/15.0	271/15.0	278/15.7	281/15.7	283/16.5	268/16.5	279/11.2	281/11.2
17	261/19.6	261/19.6	261/19.6	261/19.0	261/18.5	262/18.2	264/17.8	266/17.5	268/17.2	273/17.2	278/17.9	281/17.9	283/18.6	268/18.6	279/11.2	281/11.2
19	261/21.7	261/21.7	261/21.7	261/21.0	261/20.5	262/20.2	264/19.8	266/19.5	268/19.2	273/19.2	278/19.9	281/19.9	283/20.6	268/20.6	279/11.2	281/11.2
21	261/24.2	261/24.2	261/24.2	261/23.3	261/22.4	261/21.7	262/21.0	264/20.6	266/20.3	271/20.3	278/20.9	281/20.9	283/21.6	268/21.6	279/11.2	281/11.2
15	109/17.5	117/17.5	135/17.5	150/17.5	189/14.3	204/7.1	212/7.0	210/7.0	200/7.0	184/7.0	166/7.0	150/7.0	144/7.0	227/8.3	241/8.3	255/8.3
9	176/17.5	179/17.5	190/17.5	204/17.5	229/17.5	247/9.5	249/9.5	249/8.7	247/8.5	236/8.3	223/8.3	207/8.3	229/8.3	268/9.8	281/11.2	294/11.2
11	217/20.3	219/20.3	224/20.3	231/20.3	241/20.3	249/19.6	256/19.3	261/19.0	264/18.6	271/18.6	278/19.3	281/19.3	283/20.0	268/20.0	279/11.2	281/11.2
13	238/20.3	239/20.3	241/20.3	244/20.3	249/20.3	256/20.3	261/20.0	264/19.6	266/19.3	271/19.3	278/20.0	281/20.0	283/20.6	268/20.6	279/11.2	281/11.2
15	248/20.3	248/20.3	249/20.3	251/20.3	253/20.3	256/20.3	259/20.0	261/19.6	264/19.3	271/19.3	278/20.0	281/20.0	283/20.6	268/20.6	279/11.2	281/11.2
17	252/20.3	252/20.3	252/20.3	253/20.3	253/20.3	254/20.3	255/20.0	257/19.6	259/19.3	264/19.3	271/19.3	278/20.0	281/20.0	268/20.0	279/11.2	281/11.2
19	253/23.3	253/23.3	253/23.3	253/23.3	253/23.3	254/23.3	255/23.0	257/22.6	259/22.3	264/22.3	271/22.3	278/23.0	281/23.0	268/23.0	279/11.2	281/11.2
21	255/25.1	255/25.1	255/25.1	255/25.1	255/25.1	256/25.1	257/24.4	259/24.0	261/23.7	266/23.7	273/23.7	278/24.4	281/24.4	268/24.4	279/11.2	281/11.2
20	103/13.4	110/13.4	128/13.4	151/13.4	173/13.4	191/13.4	201/13.4	202/13.4	195/7.0	180/7.0	162/7.0	147/7.0	140/7.0	224/8.3	238/8.3	252/8.3
9	165/23.3	169/19.0	180/19.0	195/19.0	211/19.0	228/19.0	237/13.4	242/8.7	242/8.5	238/8.3	231/8.3	224/8.3	222/8.3	269/9.8	283/11.2	297/11.2
11	205/23.3	207/23.3	213/23.3	221/23.3	231/23.3	241/23.3	250/19.0	257/13.4	260/10.5	262/10.1	261/10.1	250/9.8	259/9.8	272/11.2	286/11.2	299/11.2
13	227/26.2	228/26.2	231/26.2	235/26.2	241/26.2	248/26.2	254/23.3	260/15.0	265/14.6	269/14.3	272/14.3	274/14.3	275/14.3	269/14.3	280/11.2	291/11.2
15	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2	244/26.2
17	246/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3
19	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3	247/27.3
21	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3	249/27.3
25	101/16.5	108/16.5	125/16.5	143/16.5	170/16.5	189/16.5	200/16.5	203/16.5	197/6.8	184/6.8	166/7.0	151/7.1	144/7.1	232/7.7	246/7.7	260/7.7
9	160/16.5	164/16.5	174/16.5	189/16.5	206/16.5	223/16.5	237/16.5	245/16.5	247/8.7	245/7.9	240/7.7	235/7.7	232/7.7	267/9.8	281/11.2	295/11.2
11	194/16.5	197/16.5	203/16.5	214/16.5	223/16.5	231/16.5	237/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5
13	216/16.5	220/16.5	223/16.5	228/16.5	235/16.5	241/16.5	245/16.5	248/16.5	248/16.5	248/16.5	248/16.5	248/16.5	248/16.5	248/16.5	248/16.5	248/16.5
15	230/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5	233/16.5
17	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5	236/16.5
19	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5	240/16.5
21	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5	243/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTESTED
RMS VER VEL IN FPS/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK HULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM RL

V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	.098/9.8	.109/9.8	.132/8.3	.161/7.5	.187/7.0	.206/6.7	.217/6.5	.218/6.4	.209/6.5	.192/6.5	.172/6.5	.154/6.7	.147/6.7	.192/7.7	.208/7.7	.214/7.7
9	9	.125/10.8	.131/10.8	.145/10.8	.164/10.5	.183/9.2	.199/8.3	.210/7.9	.215/7.7	.214/7.7	.208/7.7	.199/8.5	.192/8.5	.189/7.7	.192/7.7	.208/7.7	.214/7.7
11	11	.134/12.1	.137/12.1	.145/11.6	.156/11.6	.169/11.6	.181/11.6	.190/9.5	.197/9.0	.200/8.7	.199/8.5	.198/8.5	.196/8.5	.195/8.5	.196/8.5	.198/8.5	.199/8.5
13	13	.136/13.1	.137/13.1	.143/12.8	.144/12.6	.153/12.6	.161/12.6	.169/11.2	.175/10.8	.180/10.5	.182/10.1	.183/9.8	.183/9.8	.183/9.8	.183/9.8	.183/9.8	.183/9.8
15	15	.123/14.3	.123/14.3	.127/14.3	.131/14.3	.137/13.7	.144/13.1	.150/12.8	.156/12.6	.160/11.6	.163/11.2	.165/11.2	.167/11.2	.167/11.2	.167/11.2	.167/11.2	.167/11.2
17	17	.113/15.7	.114/15.7	.116/15.7	.119/15.7	.124/15.3	.130/14.9	.136/14.6	.139/14.6	.143/13.4	.146/12.8	.149/12.6	.150/12.6	.150/12.6	.150/12.6	.150/12.6	.150/12.6
19	19	.104/17.5	.105/17.5	.106/17.5	.109/17.5	.112/17.0	.116/16.5	.120/16.1	.124/15.7	.128/15.0	.131/14.6	.134/14.3	.135/14.3	.136/14.3	.136/14.3	.136/14.3	.136/14.3
21	21	.096/19.6	.096/19.6	.096/19.6	.096/19.6	.102/18.3	.106/18.0	.109/18.0	.113/17.5	.116/17.0	.119/16.5	.121/16.5	.122/16.5	.123/16.5	.123/16.5	.123/16.5	.123/16.5
10	7	.071/12.8	.082/12.8	.108/12.8	.139/8.7	.169/8.7	.193/8.3	.208/7.9	.214/7.7	.210/6.4	.197/6.5	.180/6.5	.164/6.7	.157/6.7	.164/6.7	.211/7.7	.221/7.7
9	9	.095/14.0	.101/14.0	.118/14.0	.141/13.7	.166/9.0	.188/8.3	.206/7.9	.217/7.7	.222/7.7	.222/7.7	.216/7.7	.201/7.7	.199/7.7	.201/7.7	.216/7.7	.221/7.7
11	11	.105/14.6	.109/14.6	.119/14.6	.135/14.3	.153/13.4	.171/13.4	.188/9.5	.200/9.0	.208/8.7	.214/8.7	.215/8.5	.201/8.5	.202/8.5	.201/8.5	.215/8.5	.221/8.5
13	13	.105/15.3	.107/15.3	.114/15.3	.125/15.3	.139/14.3	.153/13.4	.167/13.4	.179/12.6	.188/12.1	.195/11.6	.199/9.5	.180/9.5	.183/9.5	.180/9.5	.195/9.5	.201/9.5
15	15	.100/16.5	.102/16.1	.107/16.1	.115/15.7	.126/15.3	.137/14.3	.149/13.4	.159/12.6	.166/12.1	.175/11.6	.180/11.2	.163/11.2	.164/11.2	.163/11.2	.180/11.2	.186/11.2
17	17	.094/18.0	.096/17.5	.100/17.5	.106/17.5	.114/16.5	.123/15.7	.134/15.0	.142/14.3	.150/13.7	.156/12.8	.161/12.6	.143/12.6	.144/12.6	.143/12.6	.161/12.6	.167/12.6
19	19	.088/19.6	.089/19.6	.092/19.6	.097/19.6	.104/18.5	.111/17.5	.119/17.5	.127/15.7	.134/15.3	.140/14.6	.144/14.3	.137/14.3	.138/14.3	.137/14.3	.144/14.3	.150/14.3
21	21	.083/20.9	.083/20.9	.086/20.9	.090/20.3	.095/19.6	.101/19.6	.108/18.0	.115/17.5	.121/17.0	.126/16.5	.130/16.5	.122/16.5	.123/16.5	.122/16.5	.130/16.5	.137/16.5
15	7	.052/14.3	.064/14.3	.091/14.3	.125/7.0	.159/6.7	.187/6.5	.206/6.4	.216/6.4	.215/6.4	.205/6.5	.189/6.5	.173/6.7	.166/6.7	.173/6.7	.228/7.7	.234/7.7
9	9	.071/17.5	.078/17.5	.095/17.5	.125/14.3	.155/7.9	.183/7.7	.206/7.7	.223/7.5	.232/7.5	.234/7.7	.232/7.7	.218/7.7	.219/7.7	.218/7.7	.234/7.7	.240/7.7
11	11	.081/19.6	.085/19.6	.095/19.6	.119/17.5	.142/14.3	.166/10.8	.186/9.0	.207/8.7	.220/8.7	.228/8.7	.232/8.7	.214/8.7	.215/8.7	.214/8.7	.232/8.7	.238/8.7
13	13	.083/20.3	.086/20.3	.096/20.3	.111/20.3	.129/14.3	.149/14.3	.169/11.6	.185/10.8	.198/10.1	.208/9.8	.214/9.8	.201/9.8	.202/9.8	.201/9.8	.214/9.8	.220/9.8
15	15	.081/20.3	.084/20.3	.091/20.3	.102/20.3	.117/17.5	.133/14.3	.149/14.3	.164/12.6	.176/12.1	.186/11.2	.193/11.2	.176/11.2	.177/11.2	.176/11.2	.193/11.2	.198/11.2
17	17	.078/20.3	.080/20.3	.085/20.3	.095/20.3	.106/20.3	.119/17.5	.133/15.3	.146/14.3	.157/14.3	.166/13.1	.172/12.8	.154/12.8	.155/12.8	.154/12.8	.172/12.8	.177/12.8
19	19	.074/20.3	.076/20.3	.080/20.3	.088/20.3	.097/20.3	.108/17.5	.119/17.5	.130/16.5	.140/15.3	.148/14.6	.154/14.3	.137/14.3	.138/14.3	.137/14.3	.154/14.3	.159/14.3
21	21	.071/23.3	.072/22.4	.076/22.4	.081/21.7	.089/20.3	.098/20.3	.106/19.6	.118/17.5	.126/17.0	.133/16.5	.138/16.5	.122/16.5	.123/16.5	.122/16.5	.138/16.5	.143/16.5
20	7	.039/13.4	.051/13.4	.081/13.4	.117/13.4	.154/13.4	.186/6.3	.210/6.3	.223/6.3	.226/6.4	.218/6.5	.203/6.7	.188/6.7	.182/6.7	.188/6.7	.253/7.3	.259/7.3
9	9	.052/19.0	.061/19.0	.083/19.0	.115/13.4	.150/13.4	.184/7.9	.213/7.5	.235/7.3	.247/7.3	.255/7.3	.255/7.3	.237/7.3	.238/7.3	.237/7.3	.255/7.3	.261/7.3
11	11	.061/23.3	.067/23.3	.083/19.0	.108/19.0	.136/13.4	.164/9.2	.194/9.0	.217/8.7	.235/8.5	.247/8.5	.253/8.5	.237/8.5	.238/8.5	.237/8.5	.253/8.5	.259/8.5
13	13	.064/23.3	.069/23.3	.081/23.3	.100/23.3	.123/19.0	.148/13.4	.172/13.4	.193/10.5	.211/10.1	.224/9.8	.233/9.8	.218/9.8	.219/9.8	.218/9.8	.233/9.8	.239/9.8
15	15	.065/26.2	.068/26.2	.078/26.2	.092/23.3	.111/19.0	.131/13.4	.152/13.4	.171/13.4	.187/11.6	.200/11.2	.209/11.2	.194/11.2	.195/11.2	.194/11.2	.209/11.2	.215/11.2
17	17	.064/26.2	.067/26.2	.074/26.2	.086/26.2	.101/19.0	.118/19.0	.135/15.0	.151/14.3	.166/13.4	.177/13.4	.185/12.6	.170/12.6	.171/12.6	.170/12.6	.185/12.6	.191/12.6
19	19	.062/26.2	.064/26.2	.070/26.2	.080/26.2	.092/23.3	.109/19.0	.125/19.0	.135/16.1	.147/15.3	.157/14.6	.165/14.3	.150/14.3	.151/14.3	.150/14.3	.165/14.3	.171/14.3
21	21	.060/27.3	.062/27.3	.067/27.3	.074/26.2	.085/23.3	.097/23.3	.109/19.0	.121/19.0	.132/17.0	.141/16.5	.146/16.5	.132/16.5	.133/16.5	.132/16.5	.146/16.5	.153/16.5
25	7	.031/16.5	.044/16.5	.075/16.5	.114/16.5	.154/6.3	.190/6.3	.217/6.3	.234/6.4	.239/6.7	.234/6.7	.220/6.8	.205/7.0	.199/7.0	.205/7.0	.287/7.3	.293/7.3
9	9	.048/16.5	.048/16.5	.074/16.5	.110/16.5	.150/16.5	.190/6.8	.225/7.0	.254/7.1	.273/7.3	.283/7.3	.287/7.3	.273/7.3	.274/7.3	.273/7.3	.287/7.3	.293/7.3
11	11	.045/16.5	.052/16.5	.072/16.5	.107/16.5	.135/16.5	.171/16.5	.205/8.7	.235/7.7	.258/7.7	.275/7.7	.285/7.7	.275/7.7	.276/7.7	.275/7.7	.285/7.7	.291/7.7
13	13	.043/33.1	.045/33.1	.065/16.5	.092/16.5	.120/16.5	.150/16.5	.180/10.8	.207/10.1	.230/9.8	.247/9.2	.259/9.2	.247/9.2	.248/9.2	.247/9.2	.259/9.2	.266/9.2
15	15	.052/33.1	.055/33.1	.067/33.1	.085/16.5	.104/16.5	.133/16.5	.158/16.5	.182/12.1	.208/11.6	.230/11.2	.250/11.2	.230/11.2	.231/11.2	.230/11.2	.250/11.2	.257/11.2
17	17	.052/33.1	.055/33.1	.064/33.1	.079/24.2	.097/16.5	.118/16.5	.138/16.5	.160/16.5	.179/13.7	.192/12.8	.203/12.6	.187/12.6	.188/12.6	.187/12.6	.203/12.6	.211/12.6
19	19	.052/33.1	.054/33.1	.061/33.1	.073/33.1	.089/16.5	.106/16.5	.124/16.5	.142/16.5	.157/16.5	.170/14.6	.179/14.3	.165/14.3	.166/14.3	.165/14.3	.179/14.3	.187/14.3
21	21	.051/33.1	.053/33.1	.059/33.1	.069/33.1	.082/24.2	.096/24.2	.112/16.5	.127/16.5	.140/16.5	.152/16.5	.160/16.5	.146/16.5	.147/16.5	.146/16.5	.160/16.5	.167/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

FFG 7														
SHORTCIRCLED RMS VEP ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS OE														
(ACC. X 100)														
HELICOPTER DECK BULLSEYE - 40.0 FT FORWARD OF AP AND 30.0 FT FROM BL														
V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
7	9	.244/8.3	.286/8.3	.383/6.8	.494/5.7	.596/5.7	.572/5.7	.717/5.7	.726/5.7	.700/5.7	.645/6.3	.573/6.3	.509/6.4	.482/6.5
11	9	.258/10.5	.282/10.5	.344/10.1	.422/8.3	.499/7.0	.563/6.8	.607/6.8	.621/6.8	.624/7.0	.516/7.5	.568/7.1	.538/7.3	.526/7.3
13	9	.244/11.2	.259/11.2	.298/11.2	.350/10.8	.405/10.1	.456/7.9	.491/7.5	.514/7.5	.521/7.5	.430/8.1	.426/8.3	.421/8.3	.419/8.3
15	9	.191/12.6	.197/12.6	.215/12.6	.242/12.1	.271/11.6	.300/11.2	.324/9.2	.342/8.5	.353/8.3	.358/8.5	.357/8.5	.356/8.5	.355/8.5
17	9	.165/13.4	.170/13.4	.184/13.1	.204/12.8	.226/12.6	.249/11.6	.269/11.2	.284/9.0	.294/8.7	.299/8.7	.300/8.7	.300/9.0	.300/9.0
19	9	.144/14.0	.148/14.0	.158/13.7	.173/13.4	.191/13.1	.209/12.6	.226/11.6	.238/11.2	.247/9.0	.252/9.0	.254/9.0	.255/9.0	.255/9.0
21	9	.126/14.6	.129/14.6	.137/14.3	.149/14.3	.164/14.0	.179/13.4	.192/12.6	.203/11.6	.211/11.2	.215/10.5	.218/10.1	.218/9.2	.218/9.2
10	7	.151/12.8	.197/8.5	.302/6.3	.426/5.7	.545/5.7	.644/5.7	.713/5.7	.746/5.7	.743/6.3	.707/6.3	.651/6.4	.594/6.5	.570/6.5
11	7	.164/13.7	.192/13.7	.264/13.7	.358/6.7	.457/6.7	.547/6.7	.620/6.7	.664/6.7	.682/6.8	.604/7.7	.607/7.7	.584/7.3	.569/7.3
13	7	.147/14.6	.178/14.3	.226/14.0	.294/10.8	.370/7.1	.443/7.1	.507/7.3	.555/7.5	.588/7.5	.484/8.1	.516/8.1	.497/8.3	.483/8.3
15	7	.132/15.3	.159/14.6	.193/14.3	.243/14.0	.300/11.2	.358/8.5	.411/7.9	.454/7.9	.485/8.1	.450/8.3	.432/8.5	.437/8.5	.434/8.5
17	7	.117/16.1	.123/15.7	.142/15.7	.171/15.0	.206/14.3	.243/12.8	.278/11.2	.308/8.7	.333/8.7	.351/8.7	.362/8.7	.367/8.7	.369/8.7
19	7	.103/16.5	.108/16.5	.123/16.1	.146/15.7	.174/15.0	.204/14.3	.233/12.6	.259/9.0	.280/9.0	.295/9.0	.305/9.0	.311/9.0	.312/9.0
21	7	.092/17.5	.096/17.5	.108/17.0	.126/16.5	.149/15.7	.174/15.0	.204/14.3	.220/11.6	.233/9.0	.251/9.0	.260/9.0	.265/9.0	.267/9.0
15	7	.097/14.3	.147/7.1	.259/6.7	.397/5.7	.534/5.7	.654/5.7	.743/5.7	.795/5.7	.807/6.3	.783/6.3	.732/6.4	.678/6.5	.653/6.5
11	7	.105/17.5	.126/17.5	.184/17.5	.268/7.5	.363/7.5	.459/7.5	.546/7.5	.617/7.5	.670/7.5	.703/7.5	.720/7.7	.725/7.7	.725/7.7
13	7	.099/20.3	.113/20.3	.156/20.3	.219/14.3	.293/7.7	.370/7.7	.442/7.7	.505/7.7	.555/7.9	.590/8.1	.612/8.1	.622/8.3	.625/8.3
15	7	.091/20.3	.101/20.3	.133/20.3	.181/14.3	.239/11.6	.301/8.1	.361/8.1	.414/8.3	.457/8.3	.490/8.3	.511/8.5	.523/8.5	.525/8.5
17	7	.082/20.3	.090/20.3	.114/20.3	.152/20.3	.199/14.3	.249/11.6	.298/8.3	.342/8.5	.380/8.5	.408/8.7	.427/8.7	.438/8.7	.442/8.7
19	7	.074/20.3	.081/20.3	.100/20.3	.130/20.3	.168/17.5	.209/14.3	.249/8.7	.287/8.7	.318/8.7	.343/8.7	.360/9.0	.370/9.0	.373/9.0
21	7	.067/20.3	.072/20.3	.098/20.3	.112/20.3	.143/17.5	.177/14.3	.212/12.6	.243/8.7	.270/9.0	.291/9.0	.306/9.0	.315/9.0	.317/9.0
20	7	.069/13.4	.120/13.4	.240/5.7	.393/5.7	.530/5.7	.691/5.7	.801/5.7	.872/5.7	.899/6.3	.885/6.4	.842/6.4	.791/6.5	.761/6.5
9	9	.070/13.4	.106/13.4	.200/13.4	.328/5.7	.471/5.7	.612/6.3	.747/6.4	.836/6.5	.904/6.7	.941/7.0	.952/7.0	.949/7.0	.946/7.1
11	9	.070/19.0	.094/19.0	.163/13.4	.262/7.9	.378/6.3	.497/6.4	.609/6.7	.706/7.0	.782/7.3	.835/7.3	.867/7.3	.881/7.3	.885/7.3
13	9	.067/23.3	.084/23.3	.135/19.0	.211/13.4	.303/6.3	.399/6.7	.493/7.1	.577/7.1	.647/7.3	.700/7.5	.734/7.7	.754/7.7	.759/7.7
15	9	.063/23.3	.076/23.3	.114/23.3	.173/13.4	.246/6.8	.324/6.8	.401/7.3	.472/7.3	.532/7.7	.579/7.7	.611/7.9	.630/8.1	.636/8.1
17	9	.059/26.2	.068/26.2	.098/23.3	.145/13.4	.203/13.4	.266/7.7	.330/7.5	.389/7.7	.440/7.9	.481/8.1	.509/8.3	.526/8.5	.531/8.3
19	9	.054/26.2	.062/26.2	.085/26.2	.123/19.0	.170/13.4	.223/13.4	.275/7.7	.325/7.9	.368/8.3	.403/8.3	.428/8.5	.442/8.5	.447/8.5
21	9	.050/26.2	.056/26.2	.075/26.2	.105/23.3	.145/19.0	.189/13.4	.233/8.1	.275/8.1	.311/8.3	.341/8.5	.362/8.7	.375/8.7	.379/8.7
25	7	.069/16.5	.114/8.7	.238/5.7	.405/5.7	.581/5.7	.743/6.3	.874/6.3	.962/6.3	.998/6.5	.998/6.5	.958/6.7	.909/6.8	.886/6.8
9	9	.058/16.5	.094/16.5	.155/16.5	.231/6.3	.359/6.3	.497/6.4	.635/6.7	.765/6.8	.861/7.0	.911/7.1	.951/7.1	.981/7.1	.995/7.1
11	9	.052/16.5	.079/16.5	.126/16.5	.191/6.3	.299/6.3	.435/6.7	.567/6.8	.684/7.1	.789/7.3	.868/7.3	.908/7.3	.926/7.5	.935/7.5
13	9	.049/16.5	.068/16.5	.105/16.5	.157/6.3	.236/6.7	.344/6.8	.457/7.1	.550/7.3	.630/7.3	.698/7.5	.743/7.5	.771/7.5	.780/7.5
15	9	.046/16.5	.060/16.5	.089/16.5	.125/16.5	.186/16.5	.263/6.7	.359/6.8	.452/7.1	.520/7.3	.575/7.5	.616/7.5	.641/7.5	.649/7.5
17	9	.043/33.1	.054/24.2	.077/16.5	.122/16.5	.180/16.5	.245/6.8	.312/7.1	.376/7.3	.431/7.3	.481/7.5	.515/7.5	.537/7.5	.547/7.5
19	9	.040/33.1	.049/33.1	.067/33.1	.104/16.5	.152/16.5	.207/6.8	.263/7.1	.317/7.3	.366/7.3	.406/7.5	.436/7.5	.454/7.7	.460/7.7
21	9	.038/33.1	.045/33.1	.067/33.1	.104/16.5	.152/16.5	.207/6.8	.263/7.1	.317/7.3	.366/7.3	.406/7.5	.436/7.5	.454/7.7	.460/7.7

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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30811

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

DD 963

RMS TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

LOWESTED
RMS ROLL IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/11.2	.088/9.8	.133/11.2	.168/10.8	.200/9.8	.217/8.7	.104/8.7	.164/7.1	.129/7.7	.077/7.9	.044/8.1	.021/6.3	.000/0.0
	9	.000/11.2	.149/11.6	.264/11.6	.372/11.6	.431/10.8	.390/10.8	.237/10.5	.282/10.8	.270/10.5	.200/10.1	.131/10.1	.070/11.2	.000/0.0
	11	.000/11.2	.161/11.6	.305/11.6	.440/11.6	.507/11.6	.438/10.8	.282/10.5	.369/10.8	.375/10.8	.309/11.2	.225/11.2	.133/11.2	.000/0.0
	13	.000/11.2	.147/11.6	.284/11.6	.412/11.6	.474/11.2	.422/11.2	.221/11.2	.373/11.2	.391/11.6	.339/11.6	.260/11.2	.158/11.2	.000/0.0
	15	.000/11.2	.126/11.6	.246/11.6	.356/11.6	.409/11.6	.376/11.2	.248/11.2	.336/11.2	.359/11.6	.321/11.6	.251/11.2	.154/11.2	.000/0.0
	17	.000/11.2	.106/11.6	.208/11.6	.330/11.6	.345/11.2	.318/11.2	.248/11.6	.271/11.2	.314/11.6	.284/11.6	.225/11.2	.134/11.2	.000/0.0
	19	.000/11.2	.089/11.6	.175/11.6	.253/11.6	.290/11.6	.268/11.2	.212/11.6	.248/11.6	.270/11.6	.246/11.6	.196/11.2	.120/11.2	.000/0.0
21	.000/11.2	.076/11.6	.148/11.6	.214/11.6	.245/11.2	.227/11.6	.181/11.6	.212/11.2	.231/11.6	.212/11.6	.169/11.2	.104/11.2	.000/0.0	
10	7	.000/13.4	.110/12.8	.137/11.6	.163/11.6	.184/10.5	.253/9.6	.104/8.5	.136/7.0	.098/7.7	.055/7.7	.030/8.1	.014/8.1	.000/0.0
	9	.000/13.4	.111/12.8	.134/12.8	.163/12.8	.184/12.1	.253/10.8	.104/10.5	.136/10.5	.188/9.8	.131/10.1	.081/10.1	.040/10.1	.000/0.0
	11	.000/13.4	.100/12.8	.126/12.8	.153/12.8	.174/12.6	.242/11.2	.104/11.2	.136/11.2	.184/11.6	.150/11.6	.104/11.2	.048/12.6	.000/0.0
	13	.000/13.4	.088/12.8	.116/12.8	.143/12.8	.164/12.6	.232/11.2	.104/11.2	.136/11.2	.184/11.6	.150/11.6	.104/11.2	.048/12.6	.000/0.0
	15	.000/13.4	.076/12.8	.104/12.8	.131/12.8	.152/12.6	.220/11.2	.104/11.2	.136/11.2	.184/11.6	.150/11.6	.104/11.2	.048/12.6	.000/0.0
	17	.000/13.4	.065/12.8	.093/12.8	.120/12.8	.141/12.6	.209/11.2	.104/11.2	.136/11.2	.184/11.6	.150/11.6	.104/11.2	.048/12.6	.000/0.0
	19	.000/13.4	.056/12.8	.084/12.8	.111/12.8	.132/12.6	.200/11.2	.104/11.2	.136/11.2	.184/11.6	.150/11.6	.104/11.2	.048/12.6	.000/0.0
21	.000/13.4	.048/12.8	.072/12.8	.100/12.8	.121/12.6	.187/11.2	.104/11.2	.136/11.2	.184/11.6	.150/11.6	.104/11.2	.048/12.6	.000/0.0	
15	7	.000/22.4	.034/20.9	.089/19.6	.137/19.6	.170/18.6	.226/18.2	.094/18.5	.114/7.5	.076/7.7	.041/7.9	.021/8.1	.010/8.1	.000/0.0
	9	.000/20.3	.043/19.6	.110/17.5	.166/17.5	.200/16.6	.253/16.6	.114/17.5	.167/10.5	.138/9.2	.093/9.2	.057/9.2	.028/9.2	.000/0.0
	11	.000/20.3	.051/19.6	.122/17.5	.178/17.5	.212/16.6	.265/16.6	.114/17.5	.167/10.5	.138/9.2	.093/9.2	.057/9.2	.028/9.2	.000/0.0
	13	.000/20.3	.052/19.6	.126/17.5	.182/17.5	.216/16.6	.269/16.6	.114/17.5	.167/10.5	.138/9.2	.093/9.2	.057/9.2	.028/9.2	.000/0.0
	15	.000/20.3	.049/19.6	.110/18.0	.166/18.0	.200/17.5	.253/17.5	.114/17.5	.167/10.5	.138/9.2	.093/9.2	.057/9.2	.028/9.2	.000/0.0
	17	.000/20.3	.044/19.6	.097/18.0	.153/18.0	.187/17.5	.240/17.5	.114/17.5	.167/10.5	.138/9.2	.093/9.2	.057/9.2	.028/9.2	.000/0.0
	19	.000/20.3	.039/19.6	.085/18.0	.141/18.0	.175/17.5	.235/17.5	.114/17.5	.167/10.5	.138/9.2	.093/9.2	.057/9.2	.028/9.2	.000/0.0
21	.000/20.3	.035/19.6	.074/18.0	.130/18.0	.164/17.5	.221/17.5	.114/17.5	.167/10.5	.138/9.2	.093/9.2	.057/9.2	.028/9.2	.000/0.0	
20	7	.000/69.8	.053/7.0	.060/26.2	.126/19.0	.199/13.4	.357/9.8	.099/8.5	.101/7.5	.064/7.7	.032/7.9	.016/8.1	.007/8.1	.000/0.0
	9	.000/27.3	.045/26.2	.080/23.3	.175/19.0	.242/13.4	.423/10.8	.173/10.5	.186/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2	.000/0.0
	11	.000/27.3	.047/26.2	.097/23.3	.194/19.0	.261/13.4	.426/11.2	.173/10.5	.186/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2	.000/0.0
	13	.000/27.3	.047/26.2	.100/23.3	.185/19.0	.251/13.4	.426/11.2	.173/10.5	.186/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2	.000/0.0
	15	.000/27.3	.044/26.2	.093/23.3	.155/19.0	.231/13.4	.404/11.6	.173/10.5	.186/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2	.000/0.0
	17	.000/27.3	.040/26.2	.084/23.3	.144/19.0	.221/13.4	.384/11.6	.173/10.5	.186/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2	.000/0.0
	19	.000/27.3	.036/26.2	.074/23.3	.135/19.0	.210/13.4	.364/11.6	.173/10.5	.186/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2	.000/0.0
21	.000/27.3	.032/26.2	.065/23.3	.124/19.0	.197/13.4	.344/11.6	.173/10.5	.186/10.1	.116/9.2	.075/9.2	.045/9.2	.021/9.2	.000/0.0	
25	7	.000/7.9	.045/7.5	.095/7.0	.104/26.2	.277/15.5	.450/10.1	.094/8.3	.089/7.5	.054/7.7	.026/7.9	.013/8.1	.006/8.1	.000/0.0
	9	.000/48.3	.044/44.9	.094/33.1	.153/24.2	.356/15.5	.507/11.2	.164/10.5	.127/9.8	.097/9.0	.062/9.5	.037/9.2	.021/9.2	.000/0.0
	11	.000/37.0	.043/34.9	.102/29.9	.173/24.2	.366/15.5	.459/11.6	.164/10.5	.127/9.8	.097/9.0	.062/9.5	.037/9.2	.021/9.2	.000/0.0
	13	.000/36.9	.043/33.1	.101/29.9	.157/24.2	.304/15.5	.387/11.6	.164/10.5	.127/9.8	.097/9.0	.062/9.5	.037/9.2	.021/9.2	.000/0.0
	15	.000/36.9	.046/33.1	.094/29.9	.151/24.2	.254/15.5	.319/12.1	.164/10.5	.127/9.8	.097/9.0	.062/9.5	.037/9.2	.021/9.2	.000/0.0
	17	.000/36.9	.042/33.1	.084/29.9	.133/24.2	.217/15.5	.271/12.1	.164/10.5	.127/9.8	.097/9.0	.062/9.5	.037/9.2	.021/9.2	.000/0.0
	19	.000/36.9	.037/33.1	.075/29.9	.116/24.2	.183/15.5	.220/12.1	.164/10.5	.127/9.8	.097/9.0	.062/9.5	.037/9.2	.021/9.2	.000/0.0
21	.000/36.9	.033/33.1	.066/29.9	.101/24.2	.156/15.5	.195/12.1	.164/10.5	.127/9.8	.097/9.0	.062/9.5	.037/9.2	.021/9.2	.000/0.0	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LUNGHESTED
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

V T		SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	9	018/11.2	019/11.2	023/10.5	032/9.8	049/8.5	070/6.7	021/5.7	069/6.3	089/6.7	046/7.3	032/7.5	027/7.7	025/7.7
9	9	038/12.1	040/12.1	045/11.6	053/10.9	062/9.5	085/7.5	015/6.7	068/7.0	087/8.1	080/8.3	062/8.5	056/8.5	054/8.7
11	9	054/13.4	055/13.1	058/12.6	065/11.6	072/10.5	084/9.2	012/5.7	059/7.5	080/8.3	080/9.0	076/9.2	072/9.2	071/9.8
13	9	061/14.3	062/14.3	061/13.1	062/12.8	058/11.6	048/9.2	009/5.7	049/8.3	071/9.2	077/10.1	077/10.8	075/10.8	076/10.8
15	9	062/15.7	062/14.6	061/14.3	058/13.7	051/12.6	038/11.2	007/5.7	041/9.2	062/10.5	070/11.2	074/11.2	075/11.2	075/12.1
17	9	059/15.7	059/15.7	057/15.3	053/15.3	045/14.6	032/13.1	005/5.7	035/12.1	054/11.6	063/12.8	068/12.6	070/12.6	070/12.6
19	9	055/17.5	055/17.5	052/15.7	048/15.3	040/14.6	027/13.1	004/5.7	030/12.1	047/13.1	056/12.8	061/12.6	064/12.6	064/14.0
21	9	051/17.5	050/17.5	048/17.5	043/17.0	035/15.0	023/14.3	004/5.7	025/13.7	041/13.4	050/14.6	055/14.3	058/14.3	059/14.3
10	7	014/13.4	015/12.8	019/13.1	027/11.6	042/9.5	063/7.3	022/5.7	061/6.5	063/6.7	046/7.3	032/7.5	025/7.7	023/7.7
9	9	036/15.0	035/15.6	040/14.0	047/12.6	055/11.6	054/9.1	017/5.7	063/7.0	081/7.7	075/8.1	065/8.5	058/8.5	056/8.5
11	9	059/19.1	050/15.7	052/14.5	055/13.4	059/11.6	047/9.0	012/5.7	056/7.9	079/8.5	082/9.0	076/9.2	076/9.2	074/9.8
13	9	057/17.0	056/16.5	056/15.3	056/14.3	052/12.6	041/9.8	010/5.7	047/9.8	082/10.5	072/11.2	080/10.1	080/10.1	077/10.1
15	9	054/18.5	054/18.0	052/17.5	049/15.7	042/14.3	034/13.4	006/5.7	034/11.2	054/11.6	064/12.8	069/12.6	072/12.6	072/12.6
17	9	051/18.5	050/18.5	048/17.5	044/16.5	037/15.7	024/13.4	005/5.7	029/12.1	047/13.1	057/12.8	063/14.3	065/14.3	066/14.3
19	9	047/19.6	046/19.6	044/19.0	040/18.0	032/15.7	021/14.6	005/20.9	025/13.7	041/14.6	051/14.6	056/14.3	059/14.3	060/14.3
15	7	012/20.3	013/19.6	016/17.5	023/14.3	037/11.2	056/7.9	022/5.7	054/7.0	056/7.1	041/7.5	030/7.7	024/7.7	022/7.9
9	9	030/20.3	031/19.6	035/17.5	042/14.6	050/12.1	052/8.7	017/5.7	059/7.5	076/8.7	072/8.3	064/8.5	059/8.7	056/8.7
11	9	044/20.3	045/19.6	047/17.5	050/15.3	058/13.7	045/9.5	014/5.7	053/8.1	076/8.5	081/9.0	080/9.2	077/9.2	076/9.8
13	9	050/20.3	051/19.6	051/17.5	051/15.7	048/13.7	037/11.2	011/5.7	045/8.7	069/9.2	078/9.5	081/10.1	081/10.1	081/10.1
15	9	052/20.3	051/19.6	051/18.5	049/15.5	043/14.6	031/12.1	009/5.7	038/10.1	061/10.5	072/10.5	076/11.2	078/11.2	079/11.2
17	9	050/20.3	049/19.6	048/19.0	045/17.5	038/15.3	027/12.8	008/15.7	033/12.1	053/11.6	064/12.8	070/12.6	073/12.6	073/12.6
19	9	047/20.3	046/19.6	044/19.0	041/16.5	034/15.7	023/14.6	007/18.0	028/13.4	046/13.1	057/13.1	063/14.3	066/14.3	067/14.3
21	9	043/20.3	043/20.3	040/20.3	036/16.5	030/17.0	019/14.3	006/20.9	025/13.7	041/15.0	051/14.6	057/14.3	060/14.3	061/14.3
20	7	012/31.4	013/28.6	015/24.2	020/19.0	033/13.4	050/7.9	022/5.7	048/7.0	048/7.5	035/7.7	025/7.9	020/8.1	018/8.1
9	9	028/27.3	029/26.2	032/23.3	038/19.0	045/13.4	050/7.9	018/5.7	054/7.5	070/7.9	067/8.3	060/8.5	055/8.7	053/8.7
11	9	040/27.3	041/26.2	043/23.3	046/19.0	047/14.0	041/10.1	015/6.3	050/8.1	072/8.7	078/9.0	077/9.2	075/9.2	075/9.8
13	9	046/27.3	046/26.2	047/23.3	047/19.0	045/14.6	035/11.6	012/10.5	043/9.2	056/9.5	076/10.1	080/10.1	080/10.1	081/10.1
15	9	047/27.3	047/26.2	046/23.3	044/19.0	040/15.3	029/12.6	010/14.0	037/10.8	059/10.5	070/10.5	076/11.2	078/11.2	079/11.2
17	9	046/27.3	045/26.2	044/23.3	041/19.0	036/15.1	025/13.4	009/15.7	032/12.1	052/11.6	063/11.6	069/12.6	072/12.6	073/12.6
19	9	043/27.3	042/26.2	040/23.3	037/19.0	031/17.0	021/14.6	008/18.0	028/13.4	045/13.1	058/13.1	063/14.3	066/14.3	067/14.3
21	9	040/27.3	039/26.2	037/23.3	033/19.0	028/17.0	018/14.6	008/20.9	024/13.7	040/15.0	050/14.6	056/14.3	060/14.3	061/14.3
25	7	013/49.8	014/49.8	015/41.9	019/25.2	030/16.5	046/9.2	023/5.7	044/7.0	042/7.7	030/7.9	021/8.1	016/8.3	015/8.3
9	9	027/45.3	028/41.9	030/33.1	034/24.2	041/15.5	044/10.1	019/6.3	051/7.5	064/8.3	061/8.7	055/8.7	050/9.0	048/9.0
11	9	036/37.0	039/34.9	039/29.9	041/24.2	043/15.5	039/11.2	016/10.1	048/8.3	068/8.7	074/9.2	073/9.2	071/9.8	071/9.8
13	9	043/34.9	043/33.1	043/29.9	042/24.2	041/16.5	033/12.1	014/10.5	042/9.2	063/9.5	073/10.1	077/10.1	078/10.1	078/10.1
15	9	044/34.9	044/33.1	042/29.9	040/24.2	037/16.5	028/13.1	012/14.0	036/11.2	057/10.5	068/11.2	074/11.2	076/11.2	077/11.2
17	9	042/34.9	042/33.1	040/29.9	037/24.2	033/16.5	024/14.0	011/15.7	031/12.1	050/12.1	061/11.6	068/12.6	071/12.6	072/12.6
19	9	040/34.9	039/33.1	037/29.9	033/24.2	028/16.5	020/15.0	010/18.0	027/13.7	044/13.1	055/13.1	061/14.3	065/14.3	066/14.0
21	9	037/34.9	036/33.1	034/29.9	030/24.2	025/16.5	018/15.3	009/20.9	024/17.5	039/15.0	049/14.6	055/14.3	059/14.3	060/14.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUTUAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 463

UNOCHRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 258.7 FT FORWARD OF WP AND 21.9 FT FROM RL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	100/10.1	006/9.8	013/11.2	024/10.5	046/9.5	090/8.3	136/7.5	085/7.5	036/7.9	016/8.3	008/6.3	004/6.3	000/0.0
	9	000/13.4	016/12.6	035/12.1	061/11.6	093/10.1	143/10.1	170/9.2	129/9.2	076/9.2	041/9.5	021/10.1	009/9.8	000/0.0
	11	000/14.6	028/14.3	061/14.3	099/13.7	143/12.8	183/12.1	198/11.6	162/12.1	112/11.5	071/11.6	041/12.6	019/12.6	000/0.0
	13	000/15.7	040/15.7	083/15.7	129/15.3	174/14.6	210/14.3	220/14.0	190/13.4	143/13.1	099/12.8	061/12.8	029/12.8	000/0.0
	15	000/17.5	049/17.5	100/17.5	150/17.0	197/16.5	230/16.1	237/15.7	211/15.3	168/15.0	122/14.6	078/14.6	038/14.3	000/0.0
	17	000/19.6	055/19.6	111/19.0	164/19.0	210/18.5	241/18.0	248/18.0	225/17.5	186/17.0	138/17.0	091/16.5	045/16.5	000/0.0
	19	000/20.3	059/19.6	117/19.6	172/19.0	217/19.0	247/18.5	253/18.0	233/17.5	195/17.5	149/17.0	100/16.5	050/16.5	000/0.0
10	21	000/22.4	062/22.4	122/22.4	177/21.7	221/21.7	250/20.9	256/20.9	238/20.3	202/20.3	157/19.6	106/19.6	053/19.6	000/0.0
	7	000/62.8	009/13.4	017/12.8	033/12.1	051/10.5	094/8.7	135/7.5	080/7.5	032/7.9	014/8.3	007/8.5	003/6.5	000/0.0
	9	000/15.3	020/15.0	042/14.3	074/13.4	114/12.1	167/11.2	171/9.5	123/9.2	070/9.5	037/9.5	019/10.1	008/10.1	000/0.0
	11	000/17.0	034/16.5	071/16.1	114/14.5	159/13.4	194/12.5	198/11.6	156/12.1	104/11.6	065/11.6	036/11.6	016/12.1	000/0.0
	13	000/19.5	046/18.0	094/17.5	144/16.5	190/15.7	221/14.6	220/14.0	182/13.4	136/13.1	090/13.1	054/14.3	025/14.3	000/0.0
	15	000/19.6	055/19.6	111/19.0	165/18.5	211/17.5	239/16.5	237/15.7	204/15.3	156/15.0	112/14.6	070/14.6	034/14.3	000/0.0
	17	000/21.7	061/21.7	121/20.9	177/20.3	223/19.6	249/18.5	248/18.0	218/17.5	174/17.0	128/17.0	083/16.5	040/16.5	000/0.0
15	19	000/21.7	065/21.7	128/21.7	184/20.9	229/19.6	254/19.0	253/18.0	227/18.0	186/17.6	139/17.6	092/17.6	045/17.6	000/0.0
	21	000/24.2	068/24.2	132/24.2	184/23.3	232/22.4	256/21.7	256/20.9	232/20.3	194/20.3	148/19.6	099/19.6	049/19.6	000/0.0
	7	000/7.3	056/7.3	070/17.5	060/14.3	072/11.6	109/9.2	135/7.5	076/7.5	029/8.1	012/8.3	005/8.5	002/6.5	000/0.0
	9	000/7.3	047/19.5	072/17.5	094/15.3	133/13.1	167/11.2	171/9.5	117/9.2	065/9.5	034/9.5	017/10.1	007/10.1	000/0.0
	11	000/7.3	051/19.6	092/17.5	134/16.5	178/14.6	207/12.8	199/11.6	149/12.1	097/11.6	059/11.6	033/11.2	014/11.2	000/0.0
	13	000/7.3	059/19.6	113/19.0	163/17.5	208/15.7	232/15.3	221/14.0	175/13.7	125/13.4	082/14.6	048/14.3	022/14.3	000/0.0
	15	000/21.7	066/21.7	128/20.3	183/19.0	228/18.5	249/17.0	237/15.7	196/15.3	144/15.0	102/14.6	064/14.6	030/16.5	000/0.0
20	17	000/23.3	071/22.4	136/21.7	194/20.3	238/19.0	254/19.0	247/18.0	211/17.5	164/17.0	118/17.0	075/16.5	037/16.5	000/0.0
	19	000/24.2	074/24.2	142/23.3	199/22.4	242/20.9	261/19.6	252/18.0	220/18.0	174/19.6	130/19.6	085/19.6	042/19.6	000/0.0
	21	000/27.3	076/26.2	145/26.2	203/23.1	245/20.9	263/22.4	255/20.9	226/20.3	185/20.3	139/19.6	092/19.6	046/19.6	000/0.0
	7	000/0.0	083/26.2	150/23.3	154/19.0	184/13.4	122/9.8	135/7.5	072/7.5	027/8.1	010/8.3	004/8.5	002/6.5	000/0.0
	9	000/0.0	083/26.2	140/23.3	156/19.0	184/14.3	143/11.6	171/9.5	112/9.2	060/9.5	031/9.5	015/10.1	006/10.1	000/0.0
	11	000/0.0	086/26.2	143/23.3	178/19.0	202/15.7	222/13.4	199/11.6	143/12.1	091/11.6	054/11.6	029/11.2	013/11.2	000/0.0
	13	000/0.0	086/26.2	153/23.3	199/19.0	231/17.0	245/14.5	221/14.0	168/13.7	116/13.4	075/14.6	044/14.3	020/14.3	000/0.0
25	15	000/0.0	089/26.2	161/23.3	213/20.9	246/18.5	260/17.5	237/15.7	189/15.3	138/15.0	094/14.6	058/16.5	027/16.5	000/0.0
	17	000/0.0	091/26.2	166/23.3	220/22.4	236/20.9	267/18.0	247/18.0	204/17.5	155/17.0	109/17.0	069/16.5	033/16.5	000/0.0
	19	000/0.0	092/26.2	168/23.3	224/24.2	259/21.7	270/19.6	252/18.0	213/18.0	167/19.6	121/19.6	078/19.6	038/19.6	000/0.0
	21	000/0.0	093/26.2	170/23.3	226/23.1	260/24.2	271/22.4	254/20.9	220/20.3	176/20.3	131/19.6	086/19.6	042/19.6	000/0.0
	7	000/0.0	084/9.5	161/0.0	257/57.1	207/16.5	140/10.5	135/7.5	068/7.9	025/8.1	009/8.3	004/8.5	001/8.5	000/0.0
	9	000/0.0	131/48.3	219/33.1	254/24.2	220/16.5	202/12.1	172/9.5	107/9.5	036/9.5	028/10.1	013/10.1	005/10.1	000/0.0
	11	000/0.0	148/34.9	239/29.9	267/24.2	243/16.5	239/14.0	200/11.6	137/11.2	045/11.6	049/11.6	027/11.2	012/11.2	000/0.0
	13	000/0.0	152/33.1	243/29.9	274/24.2	269/16.5	261/15.3	237/14.0	162/13.7	104/13.4	069/13.1	040/12.8	018/12.8	000/0.0
	15	000/0.0	149/33.1	242/29.9	273/24.2	269/16.5	273/15.7	237/15.7	182/15.3	130/15.0	087/16.5	053/16.5	025/16.5	000/0.0
	17	000/0.0	146/33.1	236/29.9	270/24.2	264/20.9	279/18.5	246/18.0	196/17.5	145/17.0	101/17.0	063/16.5	030/16.5	000/0.0
	19	000/0.0	134/33.1	230/29.9	270/24.2	264/20.9	280/20.3	251/18.0	206/18.0	156/19.6	113/19.6	072/19.6	035/19.6	000/0.0
	21	000/0.0	133/33.1	224/29.9	267/24.2	263/23.3	280/23.3	253/20.9	213/20.3	168/20.3	122/19.6	079/19.6	039/19.6	000/0.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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UNCLASSIFIED
WMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
CENTER OF GRAVITY - 258.7 FT FORWARD OF HP AND 21.9 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/10.1	.004/9.8	.008/9.2	.015/10.5	.031/9.2	.071/7.9	.124/7.0	.076/7.0	.030/7.7	.015/8.1	.004/6.3	.004/6.3	.000/6.0
	9	.000/12.6	.008/12.6	.014/12.1	.034/11.6	.054/10.8	.095/9.5	.133/8.5	.097/8.5	.053/9.0	.029/9.2	.015/9.2	.007/9.2	.000/9.0
	11	.000/14.3	.013/14.3	.028/13.1	.049/12.8	.075/12.1	.106/11.6	.130/11.2	.104/10.1	.068/10.5	.042/11.2	.024/11.2	.011/11.2	.000/11.0
	13	.000/15.7	.017/15.7	.035/15.3	.057/14.6	.083/13.4	.107/12.8	.134/12.6	.105/12.1	.076/13.1	.051/12.8	.031/12.6	.015/12.6	.000/12.0
	15	.000/17.5	.019/17.5	.039/17.5	.061/17.5	.084/15.0	.107/14.3	.134/14.0	.104/13.7	.080/13.4	.057/14.6	.036/14.6	.017/14.6	.000/14.0
	17	.000/19.5	.020/19.5	.040/19.5	.062/19.5	.084/17.5	.107/16.1	.132/15.7	.100/15.3	.080/15.0	.059/14.6	.038/14.6	.019/14.6	.000/14.0
	19	.000/21.7	.020/21.7	.040/21.7	.061/21.7	.081/19.5	.104/18.0	.129/17.5	.096/17.5	.076/17.0	.058/17.0	.039/16.5	.019/16.5	.000/16.0
10	7	.000/13.7	.004/13.4	.008/12.8	.018/12.1	.035/11.5	.071/8.5	.128/7.0	.076/7.1	.029/7.7	.013/8.3	.007/6.3	.003/6.3	.000/6.0
	9	.000/15.3	.008/15.0	.014/14.3	.036/13.1	.062/11.6	.098/10.1	.133/8.5	.096/8.5	.053/9.0	.028/9.2	.015/9.2	.006/9.2	.000/9.0
	11	.000/17.0	.013/16.1	.029/15.3	.050/14.3	.074/12.5	.100/11.6	.130/11.2	.103/10.1	.068/10.5	.042/10.5	.023/11.2	.011/11.2	.000/11.0
	13	.000/18.0	.017/18.0	.035/17.5	.058/16.5	.081/14.3	.108/13.4	.134/12.6	.105/12.1	.076/13.1	.051/12.8	.031/12.6	.015/12.6	.000/12.0
	15	.000/19.5	.019/19.5	.039/19.5	.061/19.5	.084/17.5	.107/18.0	.132/17.5	.100/17.0	.080/17.0	.059/16.5	.038/16.5	.019/16.5	.000/16.0
	17	.000/21.7	.019/21.7	.040/21.7	.062/21.7	.084/19.5	.107/20.9	.132/19.5	.095/17.5	.076/17.0	.058/17.0	.039/16.5	.019/16.5	.000/16.0
	21	.000/24.2	.019/24.2	.034/23.3	.054/22.4	.077/21.7	.097/19.5	.124/18.0	.090/17.5	.075/17.5	.058/17.0	.039/16.5	.019/16.5	.000/16.0
15	7	.000/7.3	.006/19.6	.012/17.5	.020/14.3	.039/11.5	.075/7.3	.128/7.0	.075/7.3	.029/7.7	.012/8.3	.006/6.3	.003/6.3	.000/6.0
	9	.000/20.3	.010/19.6	.021/17.5	.037/15.0	.055/12.4	.081/10.5	.133/8.7	.096/8.7	.053/9.0	.028/9.2	.014/9.2	.006/9.2	.000/9.0
	11	.000/20.3	.014/19.6	.030/17.5	.051/16.5	.069/13.7	.111/12.1	.130/10.5	.103/10.1	.067/10.5	.041/10.5	.023/11.2	.010/11.2	.000/11.0
	13	.000/20.3	.017/19.6	.036/19.0	.058/17.5	.074/15.7	.112/14.0	.125/12.6	.104/12.1	.075/13.1	.050/12.8	.030/12.6	.014/12.6	.000/12.0
	15	.000/21.7	.019/20.9	.034/20.3	.061/18.5	.087/17.0	.109/15.3	.119/14.0	.103/13.7	.076/14.6	.055/14.6	.034/14.6	.016/14.6	.000/14.0
	17	.000/22.4	.019/22.4	.040/21.7	.062/20.3	.085/18.5	.104/17.0	.112/15.7	.099/15.3	.079/15.0	.057/15.0	.037/15.0	.018/15.0	.000/15.0
	19	.000/23.3	.019/22.4	.034/21.7	.060/20.3	.081/19.0	.098/19.0	.104/18.0	.095/17.5	.077/17.0	.057/17.0	.038/16.5	.019/16.5	.000/16.0
20	7	.000/34.9	.007/34.9	.016/26.2	.028/19.0	.043/13.4	.074/9.5	.127/7.0	.075/7.3	.028/7.7	.011/8.3	.006/6.3	.003/6.3	.000/6.0
	9	.000/34.9	.012/26.2	.025/23.3	.042/19.0	.067/14.3	.105/11.2	.133/8.7	.095/8.7	.052/9.0	.027/9.2	.014/9.2	.006/9.2	.000/9.0
	11	.000/34.9	.016/26.2	.033/23.3	.054/19.0	.081/15.3	.114/12.5	.130/10.5	.102/10.1	.067/10.5	.040/10.5	.022/11.2	.010/11.2	.000/11.0
	13	.000/34.9	.018/26.2	.038/23.3	.060/19.0	.087/16.1	.114/14.3	.125/12.6	.103/12.1	.074/13.1	.048/12.8	.029/12.6	.013/12.6	.000/12.0
	15	.000/34.9	.020/26.2	.040/23.3	.063/19.0	.087/16.1	.110/15.7	.119/14.0	.102/13.7	.077/15.0	.053/14.6	.033/14.6	.016/14.6	.000/14.0
	17	.000/34.9	.021/26.2	.041/23.3	.063/20.9	.085/19.6	.105/17.5	.112/15.7	.098/15.3	.077/15.0	.056/16.5	.036/16.5	.017/16.5	.000/16.0
	19	.000/34.9	.021/26.2	.041/23.3	.061/22.4	.081/20.3	.098/18.0	.104/18.0	.094/17.5	.076/17.0	.056/17.0	.037/16.5	.018/16.5	.000/16.0
25	7	.000/34.9	.006/34.9	.014/24.2	.024/16.5	.041/11.5	.074/7.0	.127/7.0	.074/7.3	.027/7.7	.011/8.3	.005/8.5	.002/8.5	.000/8.0
	9	.000/34.9	.013/34.9	.024/29.9	.050/24.2	.072/16.5	.109/11.6	.133/8.7	.095/8.7	.051/9.2	.026/9.5	.013/10.1	.005/10.1	.000/10.0
	11	.000/34.9	.020/33.1	.040/29.9	.061/24.2	.085/16.5	.117/12.8	.130/10.5	.101/10.1	.066/10.5	.040/10.5	.022/11.2	.010/11.2	.000/11.0
	13	.000/34.9	.023/33.1	.046/29.9	.066/24.2	.090/16.5	.116/14.3	.125/12.6	.102/12.1	.072/12.1	.048/12.8	.028/12.6	.013/12.6	.000/12.0
	15	.000/34.9	.025/33.1	.048/29.9	.068/24.2	.090/16.5	.112/16.5	.119/14.0	.101/13.7	.076/15.0	.052/14.6	.032/14.6	.015/14.6	.000/14.0
	17	.000/34.9	.025/33.1	.048/29.9	.067/24.2	.087/19.6	.106/18.0	.112/15.7	.097/15.3	.076/15.0	.054/16.5	.035/16.5	.017/16.5	.000/16.0
	19	.000/34.9	.024/33.1	.047/29.9	.065/24.2	.083/20.3	.104/18.0	.104/18.0	.093/17.5	.074/17.0	.054/17.0	.036/16.5	.018/16.5	.000/16.0
21	.000/34.9	.024/33.1	.045/29.9	.062/24.2	.079/23.3	.093/20.3	.097/18.0	.088/17.5	.072/19.6	.054/19.6	.036/19.6	.018/19.6	.000/19.0	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS WIND WAVE PERIOD IN SECONDS.

DU 463

LONGCHESSED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)

CENTER OF GRAVITY - 25A.7 FT FORWARD OF AP AND 21.9 FT FROM EL

V	T	SHIP HEADING ANGLE IN DEGREES													180
		0	15	30	45	60	75	90	105	120	135	150	165		
5	7	.000/10.1	.003/9.4	.017/9.2	.032/10.1	.070/9.2	.100/7.9	.415/6.5	.222/7.0	.085/7.7	.045/5.7	.026/6.3	.012/6.30.000/0000		
	9	.000/12.1	.013/12.1	.031/12.1	.059/11.2	.110/10.5	.210/9.0	.362/7.5	.243/7.9	.124/8.5	.066/9.0	.036/9.2	.016/9.20.000/0000		
	11	.000/13.4	.018/13.4	.043/13.1	.077/11.6	.128/11.2	.207/10.8	.306/8.7	.229/9.0	.139/9.2	.083/9.5	.047/10.1	.021/10.10.000/0000		
	13	.000/14.6	.022/14.6	.048/14.3	.083/13.7	.130/12.6	.192/11.6	.259/11.2	.207/11.2	.139/11.6	.090/12.8	.054/12.6	.025/12.60.000/0000		
	15	.000/15.7	.023/15.7	.050/15.3	.083/15.0	.123/13.4	.172/12.8	.222/12.6	.184/12.1	.132/13.1	.090/12.8	.056/12.8	.027/12.60.000/0000		
	17	.000/17.5	.023/17.5	.049/17.0	.078/15.3	.114/13.0	.154/12.3	.191/11.4	.163/13.4	.122/13.4	.087/14.6	.055/14.3	.027/14.30.000/0000		
	19	.000/17.5	.022/17.5	.046/17.5	.073/17.0	.103/15.0	.136/14.6	.165/14.0	.144/15.0	.111/15.0	.081/14.6	.053/14.6	.026/14.30.000/0000		
10	7	.000/19.6	.021/19.6	.042/19.0	.057/17.0	.093/15.5	.121/15.1	.144/15.7	.128/15.3	.101/15.0	.075/16.5	.049/16.5	.024/16.50.000/0000		
	9	.000/13.7	.005/13.4	.013/12.8	.031/11.6	.058/11.5	.113/9.3	.413/6.5	.235/7.0	.090/7.7	.047/5.7	.027/5.7	.012/6.30.000/0000		
	11	.000/15.0	.011/15.0	.026/14.0	.055/14.8	.107/11.2	.204/9.5	.361/7.5	.255/8.1	.133/8.5	.072/9.0	.039/9.2	.017/9.20.000/0000		
	13	.000/16.1	.016/16.1	.037/15.3	.070/14.3	.122/11.4	.202/10.8	.306/9.0	.239/9.0	.149/9.5	.090/10.1	.051/10.1	.023/10.10.000/0000		
	15	.000/17.0	.019/17.0	.042/16.1	.075/15.3	.123/13.4	.186/11.6	.259/11.2	.215/10.1	.148/10.3	.097/11.6	.058/12.6	.027/12.60.000/0000		
	17	.000/18.5	.020/18.0	.044/17.5	.075/15.5	.117/14.6	.168/13.4	.222/12.6	.191/12.1	.140/13.1	.096/12.8	.060/12.8	.029/14.30.000/0000		
	19	.000/19.6	.020/19.6	.043/18.0	.071/17.0	.107/15.7	.147/15.6	.191/14.0	.169/13.7	.129/13.4	.092/14.6	.059/14.3	.028/14.30.000/0000		
15	7	.000/20.3	.018/20.3	.038/19.6	.061/18.5	.097/17.5	.132/15.0	.166/14.9	.149/15.0	.117/15.0	.086/14.6	.056/14.6	.028/14.30.000/0000		
	9	.000/20.3	.005/19.6	.012/17.5	.027/14.3	.056/11.6	.157/9.0	.410/6.5	.247/6.7	.094/7.7	.047/5.7	.027/5.7	.012/6.30.000/0000		
	11	.000/20.3	.010/19.6	.023/17.5	.047/15.0	.100/12.6	.194/10.1	.360/7.5	.267/8.1	.142/8.5	.076/9.0	.041/9.2	.018/9.20.000/0000		
	13	.000/20.3	.014/19.6	.032/17.5	.061/15.7	.114/13.4	.186/11.2	.260/9.0	.249/9.0	.158/9.5	.096/10.1	.054/10.1	.025/10.10.000/0000		
	15	.000/20.3	.016/19.6	.036/19.0	.066/16.5	.114/14.6	.181/12.1	.260/11.2	.223/10.1	.156/10.5	.103/11.2	.061/11.2	.029/11.20.000/0000		
	17	.000/21.7	.017/20.3	.034/19.0	.066/17.5	.109/13.7	.163/14.0	.222/12.6	.197/12.1	.147/13.1	.102/12.8	.063/12.5	.030/14.30.000/0000		
	19	.000/21.7	.017/21.7	.037/20.3	.063/18.5	.100/17.0	.145/15.3	.191/14.0	.176/13.7	.135/13.4	.097/14.6	.062/14.3	.030/14.30.000/0000		
20	7	.000/22.4	.016/22.4	.035/21.7	.059/19.6	.091/17.0	.129/15.3	.185/14.0	.153/15.3	.122/15.0	.090/14.6	.059/14.6	.029/16.50.000/0000		
	9	.000/23.3	.016/22.4	.033/21.7	.055/20.3	.082/16.5	.114/17.0	.144/15.7	.135/15.3	.110/15.0	.083/16.5	.055/16.5	.027/16.50.000/0000		
	11	.000/34.9	.004/31.4	.010/25.1	.025/19.0	.050/13.4	.162/9.5	.408/6.5	.258/6.7	.098/7.5	.046/7.9	.026/6.3	.012/6.30.000/0000		
	13	.000/27.3	.008/26.2	.019/23.3	.042/19.0	.091/14.0	.193/10.5	.359/7.9	.277/8.1	.150/8.5	.080/9.0	.042/9.2	.019/9.20.000/0000		
	15	.000/27.3	.011/26.2	.027/23.3	.054/19.0	.103/15.0	.191/11.6	.306/9.0	.258/9.0	.156/9.5	.083/10.1	.058/10.1	.026/10.10.000/0000		
	17	.000/27.3	.014/26.2	.031/23.3	.059/19.0	.104/16.1	.176/12.6	.230/10.1	.230/10.1	.153/10.5	.102/10.1	.065/11.2	.030/11.20.000/0000		
	19	.000/27.3	.015/26.2	.032/23.3	.057/19.0	.092/15.0	.141/14.6	.191/12.6	.178/13.7	.140/14.6	.101/14.6	.065/14.3	.032/14.30.000/0000		
25	7	.000/27.3	.015/26.2	.031/23.3	.053/20.9	.084/18.5	.125/15.1	.165/14.0	.157/15.3	.126/15.0	.094/14.6	.062/16.5	.031/16.50.000/0000		
	9	.000/27.3	.014/26.2	.030/23.3	.050/21.7	.077/19.0	.111/17.5	.144/15.7	.138/15.3	.114/15.0	.086/16.5	.058/16.5	.029/16.50.000/0000		
	11	.000/0000	.004/48.3	.008/39.3	.020/25.1	.055/16.5	.159/10.1	.407/6.5	.268/6.5	.101/7.5	.046/7.9	.025/6.3	.012/6.30.000/0000		
	13	.000/48.3	.006/37.0	.016/31.4	.036/24.2	.082/16.5	.184/11.2	.359/7.9	.287/8.1	.157/8.5	.083/9.0	.043/9.2	.019/9.20.000/0000		
	15	.000/34.9	.010/33.1	.024/29.9	.044/24.2	.094/16.5	.186/12.1	.305/9.0	.266/9.0	.174/9.5	.107/10.1	.060/10.1	.027/10.10.000/0000		
	17	.000/34.9	.014/33.1	.029/29.9	.053/24.2	.096/16.5	.171/13.1	.250/11.2	.237/10.1	.170/10.5	.107/11.2	.069/11.2	.032/11.20.000/0000		
	19	.000/34.9	.014/33.1	.031/29.9	.054/24.2	.092/16.5	.154/13.4	.222/12.6	.208/12.1	.159/11.6	.112/11.6	.070/12.6	.034/12.60.000/0000		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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UNSCHESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
CENTER OF GRAVITY - 259.7 FT FORWARD OF AP AND 21.9 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	015/9.8	016/9.5	020/11.2	031/10.5	063/9.2	144/7.9	242/6.7	205/6.3	111/6.7	085/7.3	049/5.7	043/5.7	041/5.7
	9	044/13.4	044/13.1	059/12.5	061/11.6	123/10.8	192/9.5	259/8.7	234/8.5	161/8.7	111/9.0	084/9.2	072/9.2	068/9.2
	11	089/14.6	093/14.3	106/14.3	130/13.7	167/12.6	217/11.6	260/11.2	243/10.8	191/10.8	150/11.2	124/11.2	110/11.2	106/11.2
	13	129/15.7	133/15.7	145/15.7	166/13.7	196/14.6	232/13.1	260/12.6	248/12.6	211/13.1	180/12.8	154/12.6	141/12.6	137/12.6
	15	160/17.5	164/17.5	174/17.5	194/17.0	234/16.5	284/16.1	280/15.7	251/15.0	225/15.0	201/14.6	184/14.3	173/14.3	170/14.3
	17	182/19.6	185/19.6	193/19.4	207/19.0	235/18.5	284/17.5	280/18.0	251/17.5	233/17.1	215/16.5	193/16.5	180/16.5	175/16.5
	19	198/20.3	200/20.3	207/19.6	216/19.6	232/19.4	284/18.5	256/18.0	238/17.5	224/17.0	207/19.0	184/19.0	170/19.0	165/19.0
	21	211/22.4	213/22.4	218/22.4	224/22.4	238/21.7	284/20.9	256/20.9	233/20.3	216/20.3	193/19.6	170/19.6	156/19.6	151/19.6
10	7	013/13.4	014/12.8	018/13.7	029/12.1	060/10.1	142/8.5	241/6.7	215/6.5	131/6.7	076/7.3	052/7.7	043/7.7	041/7.7
	9	043/16.1	046/15.7	057/14.6	079/13.4	119/12.1	187/10.1	259/8.7	248/8.3	166/8.3	136/8.3	103/8.7	088/8.7	084/8.7
	11	086/17.0	090/17.0	103/16.1	127/14.6	164/13.4	244/12.1	260/11.2	254/10.8	211/10.5	171/10.5	143/11.2	128/10.8	124/10.8
	13	125/18.5	129/18.0	141/17.5	163/16.5	192/15.7	229/13.7	260/12.6	255/12.6	225/13.1	195/12.8	173/12.6	160/12.6	155/12.6
	15	156/19.6	160/19.6	170/19.0	188/18.5	211/17.5	238/16.5	257/15.7	255/15.3	234/15.0	212/14.6	195/14.3	184/14.3	181/14.3
	17	178/21.7	181/21.7	190/20.9	206/20.3	222/19.6	242/18.5	257/18.0	254/17.5	239/17.0	222/16.5	209/16.5	198/16.5	194/16.5
	19	194/22.4	197/22.4	204/21.7	215/20.9	229/19.6	244/19.0	255/18.0	254/17.5	243/17.5	230/17.0	213/19.0	201/19.0	196/19.0
	21	207/25.1	209/24.2	215/24.2	224/23.3	235/22.4	247/21.7	255/20.9	254/20.3	246/20.3	236/19.6	228/19.6	223/19.6	221/19.6
15	7	012/20.9	012/20.3	016/17.5	024/14.6	059/12.1	138/9.0	241/6.7	221/6.7	142/7.1	086/7.5	056/7.7	044/7.9	040/7.9
	9	040/20.3	043/19.6	054/17.5	077/15.7	117/13.1	183/10.8	259/8.7	259/7.9	160/8.1	127/8.5	109/8.5	103/8.7	103/8.7
	11	082/20.3	087/19.6	100/18.5	124/16.5	161/14.5	210/12.8	260/11.2	246/10.1	232/10.1	196/10.1	174/10.1	149/10.1	149/10.1
	13	121/21.7	125/20.9	137/19.6	159/18.5	189/15.7	226/11.2	260/12.6	262/12.6	240/13.1	215/12.8	194/12.6	181/12.6	177/12.6
	15	152/22.4	155/22.4	166/21.7	184/20.3	209/18.5	235/17.0	259/15.7	261/15.3	241/15.0	226/14.6	211/14.3	197/14.3	194/14.3
	17	174/24.2	177/24.2	186/23.3	200/21.7	219/20.9	240/17.5	257/18.0	258/17.1	241/17.0	233/16.5	221/16.5	211/16.5	211/16.5
	19	191/25.1	193/25.1	200/24.2	212/22.4	227/20.9	243/19.6	255/18.0	256/17.5	238/17.0	224/16.5	210/16.5	200/16.5	198/16.5
	21	204/27.3	206/27.3	212/26.2	221/25.1	233/24.4	245/22.4	254/20.9	256/20.3	248/20.3	236/19.6	223/19.6	210/19.6	207/19.6
20	7	011/28.6	012/27.3	015/23.3	024/19.0	057/13.7	134/9.5	241/6.7	222/7.0	145/7.5	088/7.7	057/8.1	043/8.3	039/8.3
	9	038/27.3	041/26.2	051/23.3	073/19.0	115/14.6	180/11.2	260/8.7	269/7.5	227/7.5	180/8.5	147/8.5	137/8.7	131/8.7
	11	074/27.3	082/26.2	095/23.3	119/19.0	158/16.1	208/13.4	260/11.2	273/10.1	251/9.5	221/9.2	197/9.2	176/9.4	170/9.4
	13	112/27.3	120/26.2	133/23.3	154/19.6	186/17.0	224/14.6	260/12.6	270/12.6	256/12.1	236/11.2	219/11.2	206/11.2	204/11.2
	15	148/27.3	151/26.2	162/23.3	180/20.9	205/18.5	234/16.1	259/15.7	266/15.3	257/15.0	243/14.6	231/14.3	222/14.3	219/14.3
	17	170/27.3	173/26.2	182/23.3	196/22.4	217/20.3	238/18.0	257/18.0	263/17.5	256/17.0	246/16.5	236/16.5	228/16.5	224/16.5
	19	188/27.3	190/26.2	197/26.2	209/24.2	224/22.4	241/19.6	255/18.0	250/17.5	235/17.5	227/17.0	210/17.0	203/19.0	200/19.0
	21	202/28.6	204/29.9	209/28.5	219/26.2	231/25.1	244/24.4	255/20.9	259/20.3	249/20.3	236/19.6	224/19.6	210/19.6	207/19.6
25	7	013/33.9	014/9.8	016/34.9	024/24.2	055/16.5	131/10.5	243/6.7	220/7.0	141/7.7	084/8.1	053/8.3	039/8.5	035/8.5
	9	037/33.9	040/37.0	049/29.9	069/24.2	112/16.5	174/12.1	261/8.7	275/7.5	238/8.1	193/8.5	158/8.7	137/9.0	130/9.0
	11	077/33.9	081/33.1	092/29.9	115/24.2	155/16.5	201/11.0	263/11.2	242/10.1	247/9.0	219/9.2	184/9.4	164/9.4	158/9.4
	13	115/33.9	118/33.1	129/29.9	150/24.2	183/18.5	223/15.3	261/12.6	277/12.1	271/11.6	257/11.2	243/11.2	232/10.8	229/10.8
	15	146/33.9	149/33.1	159/29.9	176/24.2	203/20.3	233/16.5	260/15.0	272/15.0	269/15.0	250/14.6	231/14.3	224/14.3	221/14.0
	17	168/33.9	171/33.1	179/29.9	193/24.2	214/21.7	238/18.0	256/18.0	267/17.5	265/17.0	259/16.5	245/16.5	241/16.5	238/16.5
	19	186/33.9	188/33.1	195/29.9	206/24.2	222/22.4	241/20.3	256/18.0	263/17.5	263/17.5	258/17.0	253/17.0	248/17.0	245/17.0
	21	200/34.9	202/33.1	209/29.9	216/24.2	229/22.4	244/23.3	256/20.9	261/20.3	261/20.3	258/19.6	253/19.6	250/19.6	247/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 463

LONGESTED
RMS VER VEL IN FPS/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS
OF
CENTER OF GRAVITY - 258.7 FT FORWARD OF AP AND 21.9 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.010/ 9.5	.011/ 9.5	.013/ 9.0	.021/10.5	.044/ 9.2	.118/ 7.5	.234/ 6.3	.200/ 6.3	.104/ 6.5	.063/ 6.8	.050/ 5.7	.044/ 5.7	.042/ 5.7
	9	.022/13.4	.024/13.1	.030/12.1	.044/11.6	.074/10.5	.136/ 9.0	.218/ 7.0	.199/ 6.5	.126/ 7.9	.086/ 8.5	.067/ 8.7	.058/ 9.0	.055/ 9.0
	11	.033/14.3	.042/14.3	.049/13.1	.054/12.4	.090/12.1	.135/10.4	.190/ 9.2	.180/ 9.2	.132/ 9.5	.099/10.1	.081/10.1	.071/10.1	.069/10.8
	13	.052/15.7	.055/15.7	.062/14.3	.074/14.0	.095/13.4	.128/12.1	.166/11.6	.160/11.2	.127/11.5	.104/11.6	.089/11.6	.081/12.6	.079/12.1
	15	.060/17.5	.062/17.5	.068/15.7	.079/15.3	.095/14.6	.119/14.3	.146/12.6	.142/13.4	.120/13.1	.103/12.8	.092/12.8	.086/12.6	.084/14.0
	17	.064/17.5	.065/17.5	.070/17.5	.079/17.0	.092/16.5	.110/16.1	.130/14.0	.128/15.0	.112/15.0	.100/14.6	.092/14.3	.087/14.3	.085/14.3
	19	.065/18.6	.066/18.6	.070/18.5	.077/18.0	.088/18.5	.102/16.1	.117/15.7	.116/15.3	.104/17.0	.095/16.5	.089/16.5	.086/16.5	.084/16.5
21	.065/20.3	.066/20.3	.069/19.5	.075/19.0	.083/19.0	.094/18.5	.105/18.0	.105/17.5	.097/17.0	.091/17.0	.086/16.5	.083/16.5	.082/16.5	
10	7	.006/13.4	.006/12.8	.009/13.7	.015/12.1	.036/10.5	.110/ 8.1	.233/ 6.3	.218/ 6.3	.130/ 6.7	.077/ 7.0	.056/ 7.3	.048/ 5.7	.046/ 5.7
	9	.017/15.7	.019/15.3	.024/14.3	.037/13.1	.065/11.6	.126/ 9.5	.217/ 7.0	.221/ 6.5	.163/ 7.1	.116/ 7.7	.090/ 8.1	.078/ 8.3	.074/ 8.3
	11	.032/17.0	.034/16.5	.041/15.3	.055/14.3	.080/12.6	.126/11.2	.190/ 9.2	.197/ 8.5	.150/10.8	.127/11.2	.106/ 9.2	.095/ 9.8	.092/ 9.8
	13	.043/18.0	.046/18.0	.052/16.5	.065/15.3	.086/14.3	.120/12.6	.165/11.6	.173/10.8	.150/10.8	.127/11.2	.106/ 9.2	.095/ 9.8	.092/ 9.8
	15	.051/19.6	.053/18.5	.059/18.0	.070/17.0	.087/15.7	.113/14.6	.146/12.6	.153/13.4	.138/13.1	.122/12.8	.105/12.6	.095/12.6	.092/12.6
	17	.055/20.3	.056/19.6	.062/18.0	.071/18.5	.084/17.5	.105/16.5	.130/14.0	.136/15.0	.126/15.0	.115/14.6	.107/14.3	.103/14.3	.101/14.3
	19	.056/21.7	.058/21.7	.062/20.9	.070/20.3	.081/19.5	.097/17.0	.116/15.7	.122/15.3	.118/15.0	.108/16.5	.102/16.5	.099/16.5	.094/16.5
21	.057/22.4	.058/22.4	.062/21.7	.068/20.9	.077/19.6	.090/19.0	.105/18.0	.111/17.5	.109/17.0	.101/17.0	.097/16.5	.095/16.5	.094/16.5	
15	7	.003/20.9	.004/20.3	.006/17.5	.012/14.6	.031/11.6	.100/ 8.7	.233/ 6.3	.230/ 6.5	.149/ 7.1	.091/ 7.3	.062/ 7.7	.050/ 7.7	.047/ 7.9
	9	.012/20.3	.014/19.6	.019/17.5	.031/15.3	.057/12.8	.116/10.1	.217/ 7.0	.240/ 7.0	.196/ 7.1	.150/ 7.7	.119/ 8.1	.103/ 8.3	.098/ 8.3
	11	.025/20.3	.027/19.6	.033/18.5	.046/16.5	.071/14.0	.117/11.6	.190/ 9.2	.214/ 7.0	.192/ 7.7	.163/ 8.3	.141/ 8.7	.128/ 9.0	.124/ 9.0
	13	.035/20.9	.037/20.3	.043/19.0	.056/17.5	.078/15.7	.113/12.6	.165/11.6	.187/10.8	.175/10.5	.157/10.1	.143/10.1	.133/10.1	.130/10.1
	15	.042/21.7	.044/21.7	.050/20.3	.061/18.5	.079/17.0	.107/15.3	.146/12.6	.164/13.4	.158/13.1	.147/12.8	.137/12.6	.131/12.6	.128/12.6
	17	.046/23.3	.048/22.4	.053/21.7	.061/20.3	.074/18.5	.100/14.0	.130/14.0	.145/15.0	.142/15.0	.135/14.6	.129/14.3	.124/14.3	.123/14.3
	19	.048/24.2	.050/24.2	.054/23.3	.062/21.7	.075/20.9	.093/17.5	.116/15.7	.129/15.3	.129/15.0	.124/16.5	.120/16.5	.117/16.5	.116/16.1
21	.049/25.1	.051/25.1	.055/24.2	.061/22.4	.072/20.9	.087/19.6	.106/18.0	.116/17.5	.117/17.0	.114/17.0	.112/16.5	.110/16.5	.109/16.5	
20	7	.003/24.6	.003/27.3	.004/23.3	.008/19.0	.026/14.7	.089/ 9.2	.233/ 6.3	.238/ 6.7	.159/ 7.1	.098/ 7.7	.065/ 8.1	.051/ 8.1	.047/ 8.3
	9	.009/27.3	.010/26.2	.014/23.3	.024/19.0	.049/16.3	.106/10.8	.219/ 7.3	.256/ 7.0	.223/ 7.7	.180/ 8.3	.147/ 8.3	.128/ 8.5	.122/ 8.5
	11	.016/27.3	.020/26.2	.026/23.3	.038/19.0	.063/16.3	.109/12.1	.190/ 9.2	.230/ 7.1	.221/ 7.7	.199/ 8.3	.178/ 8.5	.165/ 8.7	.161/ 9.0
	13	.021/27.3	.029/26.2	.035/23.3	.047/19.0	.069/17.0	.106/13.4	.166/11.6	.200/ 9.8	.201/ 7.9	.190/ 8.5	.178/ 9.0	.170/ 9.2	.167/ 9.2
	15	.034/27.3	.036/26.2	.041/23.3	.053/20.9	.071/18.0	.101/15.7	.146/12.6	.174/12.6	.179/12.1	.174/11.2	.167/10.1	.153/10.1	.151/10.1
	17	.038/27.3	.040/26.2	.045/23.3	.055/22.4	.071/19.6	.095/17.5	.130/14.0	.153/13.7	.159/14.6	.157/14.6	.154/14.3	.151/14.3	.150/14.0
	19	.041/27.3	.042/26.2	.047/23.3	.055/22.4	.069/21.7	.089/18.0	.117/15.7	.136/15.3	.142/15.0	.142/15.0	.141/16.5	.139/16.1	.139/16.1
21	.042/27.3	.044/26.2	.048/26.2	.055/24.2	.067/22.4	.083/19.6	.106/18.0	.122/17.5	.128/17.0	.130/17.0	.129/16.5	.128/16.5	.128/16.5	
25	7	.006/ 7.1	.005/ 7.0	.003/34.9	.005/24.2	.021/16.5	.080/10.1	.234/ 6.3	.261/ 7.0	.161/ 7.7	.097/ 7.9	.063/ 8.1	.048/ 8.3	.044/ 8.3
	9	.007/37.0	.007/34.9	.010/29.9	.018/24.2	.041/16.5	.098/11.6	.219/ 7.3	.269/ 7.1	.243/ 7.9	.201/ 8.3	.167/ 8.7	.148/ 8.7	.139/ 9.0
	11	.013/38.9	.015/33.1	.019/28.9	.030/24.2	.054/16.5	.102/14.0	.191/ 9.2	.244/ 7.5	.246/ 8.1	.230/ 8.5	.212/ 9.0	.198/ 9.0	.194/ 9.0
	13	.021/38.9	.022/33.1	.028/28.9	.037/24.2	.061/16.5	.109/14.0	.167/11.6	.212/ 7.5	.246/ 8.3	.220/ 8.7	.205/ 9.2	.190/ 9.2	.187/ 9.2
	15	.027/38.9	.028/33.1	.034/28.9	.045/24.2	.066/16.5	.106/14.0	.147/12.6	.185/12.1	.199/ 8.3	.201/ 9.0	.199/ 9.2	.186/ 9.8	.184/ 9.8
	17	.031/38.9	.033/33.1	.038/28.9	.048/24.2	.066/20.9	.091/18.0	.130/14.0	.160/13.7	.176/14.6	.181/ 9.2	.180/10.1	.179/10.1	.179/10.1
	19	.034/38.9	.035/33.1	.040/28.9	.049/24.2	.067/21.7	.093/18.5	.117/15.7	.143/15.3	.156/15.0	.162/14.6	.163/14.6	.164/14.3	.163/14.3
21	.036/38.9	.037/33.1	.042/28.9	.049/24.2	.068/21.7	.094/20.3	.106/18.0	.128/17.5	.140/17.0	.145/17.0	.144/16.5	.149/16.5	.149/16.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

DU 463

LONGITUDINAL
 RMS VEM ACC IN DISPERSED MODAL PERIOD, T, IN SECONDS
 (ACC. X 100)

CENTER OF GRAVITY - 258.7 FT FORWARD OF AP AND 21.9 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180		
5	7	.021/ 9.5	.023/ 9.5	.029/ 8.7	.045/10.1	.100/ 8.7	.311/ 7.1	.746/ 6.3	.635/ 5.7	.318/ 6.3	.202/ 5.2	.164/ 5.7	.144/ 5.7	.138/ 5.7		
9	9	.036/12.6	.039/12.6	.051/12.1	.078/11.2	.145/ 9.8	.319/ 6.3	.623/ 6.3	.571/ 6.3	.343/ 6.3	.229/ 7.7	.183/ 7.7	.161/ 5.7	.155/ 5.7		
11	11	.056/13.4	.060/13.4	.073/13.1	.101/12.9	.159/11.2	.266/ 9.0	.694/ 6.3	.467/ 6.3	.313/ 8.1	.226/ 9.2	.184/ 9.2	.163/ 9.8	.157/ 9.8		
13	13	.068/14.6	.072/14.6	.084/14.3	.109/13.7	.154/12.1	.271/10.8	.694/ 6.5	.379/ 6.5	.272/ 9.5	.209/10.5	.177/11.2	.160/11.2	.154/11.2		
15	15	.073/15.7	.077/15.7	.087/15.3	.107/14.0	.143/13.4	.271/10.8	.694/ 6.5	.379/ 6.5	.272/ 9.5	.209/10.5	.177/11.2	.160/11.2	.154/11.2		
17	17	.073/17.5	.076/17.5	.084/17.5	.101/15.3	.129/14.6	.161/12.8	.263/11.6	.258/12.1	.202/12.1	.168/12.8	.150/12.6	.140/12.6	.137/12.6		
19	19	.071/17.5	.073/17.5	.080/17.5	.095/17.0	.116/15.0	.157/14.3	.221/12.6	.217/12.1	.175/13.1	.149/13.1	.135/14.3	.127/14.3	.125/14.3		
21	21	.067/19.6	.069/19.6	.075/17.5	.085/17.0	.103/15.5	.136/14.6	.187/14.0	.185/13.7	.152/13.4	.133/14.6	.122/14.3	.116/14.3	.114/14.3		
10	7	.008/13.4	.009/12.8	.013/12.1	.026/12.1	.070/10.1	.276/ 7.7	.740/ 6.3	.715/ 6.3	.420/ 6.7	.258/ 6.8	.197/ 5.7	.174/ 5.7	.164/ 5.7		
9	9	.021/15.3	.024/15.3	.033/14.3	.056/14.3	.112/11.2	.280/ 6.7	.620/ 6.3	.654/ 6.3	.471/ 6.7	.333/ 7.3	.261/ 7.7	.231/ 8.1	.223/ 8.1		
11	11	.037/16.1	.040/16.1	.051/15.3	.076/14.3	.127/11.2	.282/ 9.8	.620/ 6.3	.654/ 6.3	.471/ 6.7	.333/ 7.3	.261/ 7.7	.231/ 8.1	.223/ 8.1		
13	13	.048/17.0	.051/17.0	.062/16.1	.084/15.3	.126/13.4	.291/11.2	.620/ 6.3	.654/ 6.3	.471/ 6.7	.333/ 7.3	.261/ 7.7	.231/ 8.1	.223/ 8.1		
15	15	.053/18.5	.056/18.0	.065/17.5	.084/15.7	.119/14.3	.291/11.2	.620/ 6.3	.654/ 6.3	.471/ 6.7	.333/ 7.3	.261/ 7.7	.231/ 8.1	.223/ 8.1		
17	17	.054/18.6	.057/18.0	.065/18.0	.081/17.0	.108/15.7	.291/11.2	.620/ 6.3	.654/ 6.3	.471/ 6.7	.333/ 7.3	.261/ 7.7	.231/ 8.1	.223/ 8.1		
19	19	.053/20.3	.055/19.6	.062/19.0	.075/18.5	.098/16.1	.291/11.2	.620/ 6.3	.654/ 6.3	.471/ 6.7	.333/ 7.3	.261/ 7.7	.231/ 8.1	.223/ 8.1		
21	21	.051/21.7	.053/21.7	.059/20.3	.070/18.5	.089/17.5	.291/11.2	.620/ 6.3	.654/ 6.3	.471/ 6.7	.333/ 7.3	.261/ 7.7	.231/ 8.1	.223/ 8.1		
15	7	.003/20.9	.004/19.6	.006/17.5	.015/14.6	.051/11.6	.242/ 8.3	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
9	9	.012/20.3	.014/19.6	.020/17.5	.038/15.3	.087/12.6	.239/ 8.2	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
11	11	.023/20.3	.026/19.6	.034/18.5	.055/16.1	.101/13.7	.219/10.4	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
13	13	.032/20.9	.034/20.3	.043/19.0	.063/17.5	.103/14.6	.219/10.4	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
15	15	.037/21.7	.039/20.9	.047/20.3	.062/17.5	.094/13.7	.219/10.4	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
17	17	.037/22.4	.041/22.4	.048/20.3	.063/18.5	.091/17.0	.219/10.4	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
19	19	.037/23.3	.041/22.4	.048/20.3	.063/18.5	.091/17.0	.219/10.4	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
21	21	.037/24.2	.040/24.2	.046/23.3	.056/20.3	.076/18.5	.219/10.4	.619/ 6.3	.776/ 6.3	.503/ 6.7	.315/ 7.3	.226/ 7.5	.191/ 7.7	.181/ 7.9		
20	7	.007/ 6.7	.007/ 6.5	.005/23.3	.007/19.0	.035/13.4	.189/ 9.0	.734/ 6.3	.821/ 6.5	.558/ 7.1	.352/ 7.7	.246/ 7.9	.200/ 8.1	.187/ 8.1		
9	9	.008/27.3	.008/26.2	.012/23.3	.025/19.0	.065/14.3	.202/10.1	.620/ 6.3	.807/ 7.0	.715/ 7.5	.580/ 7.9	.466/ 8.1	.421/ 8.3	.402/ 8.3		
11	11	.014/27.3	.015/26.2	.022/23.3	.038/19.0	.079/15.0	.194/11.6	.620/ 6.3	.807/ 7.0	.715/ 7.5	.580/ 7.9	.466/ 8.1	.421/ 8.3	.402/ 8.3		
13	13	.020/27.3	.022/26.2	.029/23.3	.045/19.0	.082/16.1	.170/12.6	.620/ 6.3	.807/ 7.0	.715/ 7.5	.580/ 7.9	.466/ 8.1	.421/ 8.3	.402/ 8.3		
15	15	.024/27.3	.026/26.2	.033/23.3	.049/20.3	.080/17.0	.169/13.4	.620/ 6.3	.807/ 7.0	.715/ 7.5	.580/ 7.9	.466/ 8.1	.421/ 8.3	.402/ 8.3		
17	17	.027/27.3	.029/26.2	.035/23.3	.049/20.3	.075/18.0	.131/15.0	.620/ 6.3	.807/ 7.0	.715/ 7.5	.580/ 7.9	.466/ 8.1	.421/ 8.3	.402/ 8.3		
19	19	.028/27.3	.030/26.2	.035/23.3	.047/22.4	.070/19.6	.115/15.0	.620/ 6.3	.807/ 7.0	.715/ 7.5	.580/ 7.9	.466/ 8.1	.421/ 8.3	.402/ 8.3		
21	21	.028/27.3	.030/26.2	.035/23.3	.047/22.4	.064/19.6	.102/17.5	.620/ 6.3	.807/ 7.0	.715/ 7.5	.580/ 7.9	.466/ 8.1	.421/ 8.3	.402/ 8.3		
25	7	.022/ 7.1	.021/ 6.7	.006/ 6.8	.006/24.2	.024/16.5	.153/ 9.8	.742/ 5.7	.852/ 6.7	.584/ 7.5	.384/ 7.9	.246/ 8.1	.194/ 8.3	.180/ 8.3		
9	9	.014/ 7.1	.014/34.9	.007/29.9	.019/24.2	.034/16.5	.111/11.2	.623/ 6.3	.868/ 7.0	.607/ 7.7	.478/ 8.3	.369/ 8.5	.302/ 8.7	.280/ 8.7		
11	11	.012/34.9	.012/33.1	.013/29.9	.032/24.2	.060/16.5	.155/12.1	.623/ 6.3	.868/ 7.0	.607/ 7.7	.478/ 8.3	.369/ 8.5	.302/ 8.7	.280/ 8.7		
13	13	.013/34.9	.015/33.1	.014/29.9	.032/24.2	.055/16.5	.150/13.0	.623/ 6.3	.868/ 7.0	.607/ 7.7	.478/ 8.3	.369/ 8.5	.302/ 8.7	.280/ 8.7		
15	15	.016/34.9	.018/33.1	.017/29.9	.037/24.2	.055/16.5	.133/14.0	.623/ 6.3	.868/ 7.0	.607/ 7.7	.478/ 8.3	.369/ 8.5	.302/ 8.7	.280/ 8.7		
17	17	.018/34.9	.020/33.1	.025/29.9	.037/24.2	.055/16.5	.114/15.0	.623/ 6.3	.868/ 7.0	.607/ 7.7	.478/ 8.3	.369/ 8.5	.302/ 8.7	.280/ 8.7		
19	19	.020/34.9	.021/33.1	.026/29.9	.037/24.2	.055/16.5	.105/16.5	.623/ 6.3	.868/ 7.0	.607/ 7.7	.478/ 8.3	.369/ 8.5	.302/ 8.7	.280/ 8.7		
21	21	.021/34.9	.022/33.1	.026/29.9	.037/24.2	.055/16.5	.093/18.0	.623/ 6.3	.868/ 7.0	.607/ 7.7	.478/ 8.3	.369/ 8.5	.302/ 8.7	.280/ 8.7		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 463

LONGCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM BL

SHIP HEADING ANGLE IN DEGREES		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/10.8	.021/10.8	.043/10.5	.069/9.8	.104/8.7	.125/7.9	.125/7.9	.189/6.5	.145/7.1	.080/7.3	.040/7.7	.017/7.7	.000/7.7
	9	.000/12.6	.055/12.1	.114/12.1	.162/12.1	.209/12.1	.247/11.6	.247/11.6	.217/10.1	.201/8.3	.143/8.5	.085/8.7	.039/8.7	.000/8.7
	11	.000/13.4	.083/13.4	.162/13.1	.240/13.1	.318/13.1	.396/13.1	.396/13.1	.220/11.5	.220/9.6	.175/9.5	.116/10.1	.057/10.1	.000/10.1
	13	.000/14.5	.107/14.3	.185/14.3	.263/14.3	.341/14.3	.419/14.3	.419/14.3	.220/11.5	.220/11.5	.184/11.6	.131/12.6	.066/12.6	.000/12.6
	15	.000/15.7	.133/15.7	.211/15.7	.289/15.7	.367/15.7	.445/15.7	.445/15.7	.220/11.5	.220/11.5	.184/11.6	.131/12.6	.066/12.6	.000/12.6
	17	.000/17.5	.163/17.5	.241/17.5	.319/17.5	.397/17.5	.475/17.5	.475/17.5	.220/11.5	.220/11.5	.184/11.6	.131/12.6	.066/12.6	.000/12.6
	19	.000/19.6	.191/19.6	.269/19.6	.347/19.6	.425/19.6	.503/19.6	.503/19.6	.220/11.5	.220/11.5	.184/11.6	.131/12.6	.066/12.6	.000/12.6
	21	.000/20.3	.217/20.3	.295/20.3	.373/20.3	.451/20.3	.529/20.3	.529/20.3	.220/20.3	.202/20.3	.168/19.6	.120/19.6	.063/19.6	.000/19.6
10	7	.000/13.4	.037/12.8	.074/13.1	.125/11.6	.185/9.8	.221/8.1	.221/8.1	.173/7.0	.128/7.1	.069/7.5	.033/7.7	.014/7.7	.000/7.7
	9	.000/15.0	.079/14.6	.159/14.6	.239/14.6	.319/14.6	.399/14.6	.399/14.6	.173/7.0	.128/7.1	.069/7.5	.033/7.7	.014/7.7	.000/7.7
	11	.000/16.1	.112/15.7	.214/15.7	.316/15.7	.418/15.7	.520/15.7	.520/15.7	.173/7.0	.128/7.1	.069/7.5	.033/7.7	.014/7.7	.000/7.7
	13	.000/17.0	.147/16.5	.269/16.5	.391/16.5	.513/16.5	.635/16.5	.635/16.5	.173/7.0	.128/7.1	.069/7.5	.033/7.7	.014/7.7	.000/7.7
	15	.000/17.5	.163/17.0	.295/17.0	.427/17.0	.559/17.0	.691/17.0	.691/17.0	.173/7.0	.128/7.1	.069/7.5	.033/7.7	.014/7.7	.000/7.7
	17	.000/18.5	.189/18.5	.331/18.5	.473/18.5	.615/18.5	.757/18.5	.757/18.5	.173/7.0	.128/7.1	.069/7.5	.033/7.7	.014/7.7	.000/7.7
	19	.000/19.6	.217/19.6	.369/19.6	.521/19.6	.673/19.6	.825/19.6	.825/19.6	.173/7.0	.128/7.1	.069/7.5	.033/7.7	.014/7.7	.000/7.7
	21	.000/20.3	.245/20.3	.407/20.3	.569/20.3	.731/20.3	.893/20.3	.893/20.3	.202/20.3	.202/20.3	.168/19.6	.120/19.6	.063/19.6	.000/19.6
15	7	.000/7.3	.193/7.3	.389/7.5	.585/7.5	.781/7.5	.977/7.5	.977/7.5	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	9	.000/20.3	.168/19.6	.338/19.6	.508/19.6	.678/19.6	.848/19.6	.848/19.6	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	11	.000/20.3	.175/19.6	.345/19.6	.515/19.6	.685/19.6	.855/19.6	.855/19.6	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	13	.000/20.3	.182/19.6	.352/19.6	.522/19.6	.692/19.6	.862/19.6	.862/19.6	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	15	.000/20.3	.189/19.6	.359/19.6	.529/19.6	.699/19.6	.869/19.6	.869/19.6	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	17	.000/20.3	.196/19.6	.366/19.6	.536/19.6	.706/19.6	.876/19.6	.876/19.6	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	19	.000/20.3	.203/19.6	.373/19.6	.543/19.6	.713/19.6	.883/19.6	.883/19.6	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	21	.000/20.3	.210/19.6	.380/19.6	.550/19.6	.720/19.6	.890/19.6	.890/19.6	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
20	7	.000/7.3	.227/8.3	.389/7.5	.585/7.5	.781/7.5	.977/7.5	.977/7.5	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	9	.000/20.3	.234/26.2	.402/23.3	.570/23.3	.738/23.3	.906/23.3	.906/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	11	.000/20.3	.241/26.2	.409/23.3	.577/23.3	.745/23.3	.913/23.3	.913/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	13	.000/20.3	.248/26.2	.416/23.3	.584/23.3	.752/23.3	.920/23.3	.920/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	15	.000/20.3	.255/26.2	.423/23.3	.591/23.3	.759/23.3	.927/23.3	.927/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	17	.000/20.3	.262/26.2	.430/23.3	.598/23.3	.766/23.3	.934/23.3	.934/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	19	.000/20.3	.269/26.2	.437/23.3	.605/23.3	.773/23.3	.941/23.3	.941/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	21	.000/20.3	.276/26.2	.444/23.3	.612/23.3	.780/23.3	.948/23.3	.948/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
25	7	.000/7.3	.243/9.8	.389/7.5	.585/7.5	.781/7.5	.977/7.5	.977/7.5	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	9	.000/20.3	.250/26.2	.411/23.3	.589/23.3	.767/23.3	.945/23.3	.945/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	11	.000/20.3	.257/26.2	.418/23.3	.596/23.3	.774/23.3	.952/23.3	.952/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	13	.000/20.3	.264/26.2	.425/23.3	.603/23.3	.781/23.3	.959/23.3	.959/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	15	.000/20.3	.271/26.2	.432/23.3	.610/23.3	.788/23.3	.966/23.3	.966/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	17	.000/20.3	.278/26.2	.439/23.3	.617/23.3	.795/23.3	.973/23.3	.973/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	19	.000/20.3	.285/26.2	.446/23.3	.624/23.3	.802/23.3	.980/23.3	.980/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	21	.000/20.3	.292/26.2	.453/23.3	.631/23.3	.809/23.3	.987/23.3	.987/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
25	7	.000/7.3	.243/9.8	.389/7.5	.585/7.5	.781/7.5	.977/7.5	.977/7.5	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	9	.000/20.3	.250/26.2	.411/23.3	.589/23.3	.767/23.3	.945/23.3	.945/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	11	.000/20.3	.257/26.2	.418/23.3	.596/23.3	.774/23.3	.952/23.3	.952/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	13	.000/20.3	.264/26.2	.425/23.3	.603/23.3	.781/23.3	.959/23.3	.959/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	15	.000/20.3	.271/26.2	.432/23.3	.610/23.3	.788/23.3	.966/23.3	.966/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	17	.000/20.3	.278/26.2	.439/23.3	.617/23.3	.795/23.3	.973/23.3	.973/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	19	.000/20.3	.285/26.2	.446/23.3	.624/23.3	.802/23.3	.980/23.3	.980/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7
	21	.000/20.3	.292/26.2	.453/23.3	.631/23.3	.809/23.3	.987/23.3	.987/23.3	.159/7.0	.113/7.1	.060/7.5	.028/7.7	.011/7.7	.000/7.7

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 463

LONGCRESTED
 RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
 OF
 AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.000/10.8	.013/10.8	.030/10.5	.054/9.8	.107/9.7	.174/7.3	.224/7.0	.195/6.3	.136/6.7	.072/7.3	.036/7.5	.015/7.7	.000/7.7	
9	9	.000/12.1	.029/12.1	.062/11.5	.102/10.5	.147/9.5	.177/8.3	.224/7.0	.195/6.3	.136/6.7	.072/7.3	.036/7.5	.015/7.7	.000/7.7	
11	11	.000/13.4	.040/13.1	.086/12.6	.121/11.6	.154/10.5	.183/9.5	.224/7.0	.195/6.3	.136/6.7	.072/7.3	.036/7.5	.015/7.7	.000/7.7	
13	13	.000/14.6	.043/14.3	.086/13.1	.122/11.6	.154/10.5	.183/9.5	.224/7.0	.195/6.3	.136/6.7	.072/7.3	.036/7.5	.015/7.7	.000/7.7	
15	15	.000/15.6	.043/14.6	.083/13.4	.116/14.0	.135/13.4	.132/13.4	.107/13.4	.107/13.4	.130/12.1	.109/11.6	.076/12.6	.039/12.6	.000/12.6	
17	17	.000/15.7	.041/15.7	.078/13.4	.107/13.4	.122/13.0	.114/13.0	.107/13.4	.107/13.4	.117/13.4	.099/12.8	.071/12.8	.036/12.8	.000/12.8	
19	19	.000/16.1	.038/16.1	.072/13.7	.094/13.3	.111/13.0	.108/13.1	.094/13.0	.104/13.0	.115/13.0	.090/12.6	.065/12.6	.034/12.6	.000/12.6	
21	21	.000/17.5	.035/17.5	.055/17.5	.059/17.5	.100/13.5	.108/13.5	.086/13.0	.095/17.5	.095/17.0	.082/16.5	.059/16.5	.031/16.5	.000/16.5	
10	7	.000/13.4	.017/12.8	.036/13.1	.054/11.6	.114/9.8	.176/7.7	.224/7.1	.188/6.3	.131/6.7	.069/7.3	.034/7.5	.014/7.7	.000/7.7	
9	9	.000/15.0	.034/14.6	.072/13.7	.117/12.6	.150/10.5	.182/9.5	.224/7.1	.188/6.3	.131/6.7	.069/7.3	.034/7.5	.014/7.7	.000/7.7	
11	11	.000/15.3	.045/15.0	.091/14.3	.135/13.1	.166/11.6	.183/9.5	.224/7.1	.188/6.3	.131/6.7	.069/7.3	.034/7.5	.014/7.7	.000/7.7	
13	13	.000/16.1	.048/15.7	.095/15.3	.135/14.3	.157/12.6	.151/12.1	.114/12.6	.140/11.2	.140/9.8	.113/10.1	.076/10.1	.036/9.8	.000/10.1	
15	15	.000/17.0	.047/16.5	.091/16.1	.126/14.6	.143/13.4	.136/13.7	.108/14.0	.125/13.4	.126/12.1	.094/11.6	.073/11.2	.037/11.2	.000/11.2	
17	17	.000/17.0	.044/17.0	.085/16.5	.116/15.3	.129/13.7	.123/13.0	.101/13.7	.112/13.4	.113/13.4	.094/13.1	.067/14.3	.035/14.3	.000/14.3	
19	19	.000/18.0	.040/18.0	.077/17.5	.104/15.5	.117/17.5	.111/16.5	.094/15.0	.102/17.5	.101/15.0	.086/14.6	.062/14.3	.032/14.3	.000/14.3	
21	21	.000/18.5	.037/18.0	.070/17.5	.094/15.5	.105/18.0	.101/19.0	.089/18.0	.093/17.5	.092/17.0	.078/16.5	.056/16.5	.029/16.5	.000/16.5	
15	7	.000/20.3	.018/19.6	.043/17.5	.061/14.3	.135/11.2	.182/8.3	.224/7.3	.181/6.3	.126/6.7	.066/7.3	.032/7.5	.013/7.7	.000/7.7	
9	9	.000/20.3	.037/19.6	.081/17.5	.132/14.6	.177/11.6	.187/9.2	.224/7.3	.181/6.3	.126/6.7	.066/7.3	.032/7.5	.013/7.7	.000/7.7	
11	11	.000/20.3	.048/19.6	.109/17.5	.149/15.0	.181/13.6	.172/10.1	.120/10.1	.154/9.2	.149/8.5	.113/9.0	.073/9.2	.035/9.2	.000/9.2	
13	13	.000/20.3	.051/19.6	.102/17.5	.146/15.3	.164/13.6	.155/12.8	.114/12.6	.136/11.2	.137/9.8	.109/9.5	.074/10.1	.037/10.1	.000/10.1	
15	15	.000/20.3	.049/19.6	.097/17.5	.135/15.7	.152/13.6	.139/13.0	.108/13.0	.121/13.4	.121/12.1	.100/11.6	.070/11.2	.035/11.2	.000/11.2	
17	17	.000/20.3	.045/19.6	.088/17.5	.122/16.5	.137/13.7	.126/13.7	.101/13.7	.109/13.4	.109/13.4	.091/13.1	.064/12.8	.033/12.8	.000/12.8	
19	19	.000/20.3	.041/19.6	.080/17.5	.110/16.5	.122/17.0	.114/17.0	.085/16.0	.099/17.5	.098/15.0	.082/14.6	.059/14.3	.030/14.3	.000/14.3	
21	21	.000/20.3	.037/19.6	.072/17.5	.099/17.5	.110/18.0	.104/19.0	.085/18.0	.091/17.5	.098/17.0	.075/17.0	.054/16.5	.024/16.5	.000/16.5	
20	7	.000/29.9	.018/29.9	.044/26.2	.068/17.6	.152/13.4	.189/9.0	.224/7.3	.174/6.3	.120/6.7	.063/7.0	.030/7.5	.012/7.7	.000/7.7	
9	9	.000/29.9	.036/26.2	.081/23.3	.142/14.0	.194/13.4	.193/9.5	.224/7.3	.174/6.3	.120/6.7	.063/7.0	.030/7.5	.012/7.7	.000/7.7	
11	11	.000/29.9	.047/26.2	.098/23.3	.157/14.0	.194/13.4	.177/11.2	.120/10.1	.149/9.2	.143/8.5	.109/9.0	.070/9.2	.034/9.2	.000/9.2	
13	13	.000/29.9	.047/26.2	.098/23.3	.157/14.0	.194/13.4	.159/13.4	.114/12.6	.132/11.2	.131/9.5	.105/9.5	.071/10.1	.036/10.1	.000/10.1	
15	15	.000/29.9	.045/26.2	.093/23.3	.139/14.0	.160/13.4	.143/13.4	.108/13.0	.118/13.4	.117/12.1	.096/11.2	.067/11.2	.034/11.2	.000/11.2	
17	17	.000/29.9	.042/26.2	.085/23.3	.125/14.0	.143/13.0	.128/13.0	.101/13.7	.106/13.4	.104/13.4	.087/12.8	.062/12.6	.032/12.6	.000/12.6	
19	19	.000/29.9	.038/26.2	.077/23.3	.111/14.0	.127/13.0	.114/14.0	.095/13.0	.097/13.4	.094/13.0	.079/12.8	.056/12.6	.029/12.6	.000/12.6	
21	21	.000/29.9	.035/26.2	.070/23.3	.100/14.0	.114/13.5	.106/13.6	.085/13.0	.089/17.5	.085/17.0	.072/17.0	.051/16.5	.027/16.5	.000/16.5	
25	7	.000/35.9	.013/35.9	.034/34.4	.066/27.3	.165/15.5	.196/9.5	.224/7.3	.167/6.3	.114/6.7	.059/7.3	.028/7.5	.011/7.7	.000/7.7	
9	9	.000/35.9	.027/34.9	.064/33.1	.132/24.2	.206/15.5	.196/10.1	.122/10.1	.162/9.2	.141/7.9	.095/8.3	.058/8.5	.025/8.5	.000/8.5	
11	11	.000/35.9	.039/34.9	.085/29.9	.146/24.2	.233/15.5	.182/11.0	.120/10.1	.162/9.2	.141/7.9	.095/8.3	.058/8.5	.025/8.5	.000/8.5	
13	13	.000/35.9	.043/33.1	.089/29.9	.141/24.2	.233/15.5	.163/13.1	.114/12.6	.128/11.2	.126/9.5	.101/9.5	.064/10.1	.033/10.1	.000/10.1	
15	15	.000/35.9	.043/33.1	.089/29.9	.141/24.2	.233/15.5	.146/13.0	.108/13.0	.115/13.4	.112/12.1	.093/10.5	.064/11.2	.033/11.2	.000/11.2	
17	17	.000/35.9	.041/33.1	.080/29.9	.118/24.2	.164/16.5	.131/16.5	.101/15.7	.103/15.3	.100/13.4	.084/12.8	.059/12.6	.030/12.6	.000/12.6	
19	19	.000/35.9	.038/33.1	.074/29.9	.106/24.2	.130/16.5	.119/16.5	.095/15.0	.094/17.5	.090/15.0	.076/14.6	.054/14.3	.028/14.3	.000/14.3	
21	21	.000/35.9	.035/33.1	.069/29.9	.096/24.2	.117/16.5	.108/20.3	.089/18.0	.087/18.0	.082/17.5	.059/17.0	.049/16.5	.025/16.5	.000/16.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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DD 463

LONGCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	50	75	90	105	120	135	150	165	180	
5	7	.000/10.8	.027/10.8	.063/10.5	.124/ 9.8	.246/ 9.5	.470/ 7.0	.420/ 6.3	.655/ 5.7	.413/ 6.5	.212/ 6.8	.109/ 7.3	.048/ 7.50.000/0000		
9	9	.000/12.1	.048/12.1	.107/11.2	.190/10.5	.305/ 9.2	.440/ 7.9	.346/ 7.9	.557/ 6.5	.442/ 7.1	.261/ 7.7	.159/ 8.1	.072/ 8.30.000/0000		
11	11	.000/12.6	.061/12.6	.128/12.1	.207/11.2	.294/ 9.8	.369/ 8.3	.289/ 9.0	.443/ 6.7	.331/ 7.7	.278/ 8.3	.172/ 8.5	.081/ 8.70.000/0000		
13	13	.000/13.4	.063/13.4	.128/13.1	.176/11.6	.260/13.1	.335/ 9.8	.243/ 9.8	.354/ 7.0	.330/ 7.9	.248/ 8.7	.161/ 9.2	.079/ 9.20.000/0000		
15	15	.000/13.8	.059/14.3	.118/13.1	.176/12.6	.225/13.8	.253/ 9.0	.206/12.6	.288/ 7.1	.275/ 8.3	.215/ 9.0	.144/ 9.2	.063/10.10.000/0000		
17	17	.000/14.6	.054/14.6	.106/14.0	.154/12.6	.193/12.1	.213/ 9.2	.176/14.0	.238/10.1	.231/ 8.5	.184/ 9.2	.126/10.1	.063/10.10.000/0000		
19	19	.000/14.6	.048/14.6	.093/14.3	.134/13.7	.166/12.6	.181/13.1	.152/14.0	.200/13.4	.195/ 8.5	.158/ 9.5	.109/12.6	.056/12.60.000/0000		
21	21	.000/15.7	.042/15.7	.082/14.3	.117/14.0	.143/13.4	.155/14.6	.133/15.7	.171/13.7	.167/ 9.0	.136/12.8	.095/12.6	.049/12.60.000/0000		
10	7	.000/13.4	.024/12.8	.055/12.8	.118/11.2	.239/ 9.5	.454/ 7.5	.412/ 6.3	.644/ 5.7	.439/ 6.5	.226/ 6.8	.115/ 7.3	.051/ 7.50.000/0000		
9	9	.000/15.0	.045/14.6	.102/13.7	.185/12.1	.246/10.5	.424/ 8.1	.341/ 7.9	.572/ 6.5	.469/ 7.1	.303/ 7.7	.175/ 8.1	.080/ 8.30.000/0000		
11	11	.000/15.3	.057/15.0	.123/14.0	.202/12.8	.266/10.8	.356/ 8.7	.267/ 9.0	.455/ 7.0	.414/ 7.9	.293/ 8.3	.188/ 8.5	.090/ 8.70.000/0000		
13	13	.000/16.1	.059/15.7	.122/14.5	.191/13.4	.254/11.6	.246/ 9.0	.241/10.1	.353/ 7.0	.347/ 7.9	.266/ 8.5	.175/ 9.0	.086/ 9.20.000/0000		
15	15	.000/16.1	.055/15.7	.113/15.3	.171/13.7	.219/12.1	.247/ 9.5	.205/12.6	.295/ 7.0	.268/ 8.1	.229/ 9.0	.155/ 9.2	.078/ 9.80.000/0000		
17	17	.000/17.0	.050/16.1	.100/15.3	.149/14.3	.188/12.6	.208/12.6	.175/14.0	.243/10.4	.241/ 8.3	.195/ 9.2	.135/10.1	.068/10.10.000/0000		
19	19	.000/17.0	.044/16.5	.088/15.3	.130/14.3	.162/13.4	.177/13.7	.152/14.0	.204/13.4	.203/ 8.5	.161/ 9.2	.116/10.1	.059/10.10.000/0000		
21	21	.000/17.0	.039/17.0	.078/16.1	.113/14.6	.140/13.4	.152/15.7	.132/15.7	.174/15.0	.173/ 8.5	.143/ 9.5	.101/10.1	.052/11.20.000/0000		
15	7	.000/20.3	.016/19.6	.045/17.5	.108/14.3	.234/10.8	.435/ 8.1	.405/ 6.3	.697/ 5.7	.458/ 6.3	.236/ 6.8	.118/ 7.3	.051/ 7.50.000/0000		
9	9	.000/20.3	.037/19.6	.089/17.5	.173/14.3	.269/11.6	.407/ 8.5	.337/ 7.9	.583/ 6.5	.490/ 7.1	.322/ 7.9	.187/ 8.1	.045/ 8.30.000/0000		
11	11	.000/20.3	.048/19.6	.108/17.5	.188/14.6	.278/12.1	.365/ 9.0	.284/ 9.0	.493/ 7.1	.432/ 7.9	.318/ 8.3	.202/ 8.5	.097/ 8.70.000/0000		
13	13	.000/20.3	.050/19.6	.108/17.5	.178/15.0	.246/12.0	.287/ 9.5	.240/10.1	.370/ 7.5	.361/ 7.9	.241/ 8.5	.187/ 9.0	.093/ 9.20.000/0000		
15	15	.000/20.3	.047/19.6	.100/17.5	.158/15.3	.212/12.0	.240/ 9.8	.200/11.6	.300/ 7.5	.299/ 8.1	.241/ 9.0	.165/ 9.2	.083/ 9.40.000/0000		
17	17	.000/20.3	.042/19.6	.089/17.5	.137/15.3	.162/13.4	.202/12.8	.175/14.0	.247/12.6	.210/ 8.3	.205/ 9.0	.143/ 9.2	.063/10.10.000/0000		
19	19	.000/20.3	.034/19.6	.078/17.5	.121/15.7	.135/13.7	.172/14.0	.151/14.0	.207/12.6	.174/ 8.3	.174/ 9.2	.123/10.1	.063/10.10.000/0000		
21	21	.000/20.3	.033/19.6	.069/17.5	.105/15.7	.135/13.7	.148/14.0	.132/15.7	.176/15.0	.179/ 8.3	.150/ 9.2	.106/10.1	.055/10.10.000/0000		
20	7	.000/31.4	.013/29.9	.032/26.2	.087/19.0	.218/13.4	.414/ 8.7	.400/ 6.3	.706/ 5.7	.473/ 6.3	.246/ 6.8	.121/ 7.1	.052/ 7.30.000/0000		
9	9	.000/27.3	.025/26.2	.065/23.3	.145/19.0	.270/13.4	.384/ 9.2	.333/ 7.9	.592/ 6.3	.508/ 7.1	.338/ 7.7	.197/ 8.1	.090/ 8.30.000/0000		
11	11	.000/27.3	.032/26.2	.080/23.3	.160/19.0	.260/13.4	.331/ 9.5	.283/ 9.0	.470/ 7.5	.447/ 8.1	.334/ 8.5	.213/ 8.7	.103/ 9.00.000/0000		
13	13	.000/27.3	.034/26.2	.082/23.3	.152/19.0	.231/13.4	.276/10.1	.239/10.1	.375/ 7.5	.373/ 8.3	.295/ 8.7	.194/ 9.2	.099/ 9.20.000/0000		
15	15	.000/27.3	.033/26.2	.077/23.3	.137/19.0	.199/13.4	.231/11.5	.203/11.6	.304/ 7.5	.308/ 8.3	.252/ 9.0	.174/ 9.2	.084/ 9.80.000/0000		
17	17	.000/27.3	.031/26.2	.069/23.3	.120/19.0	.171/13.4	.196/13.4	.156/14.0	.250/11.2	.257/ 8.3	.213/ 9.0	.150/ 9.2	.077/10.10.000/0000		
19	19	.000/27.3	.028/26.2	.062/23.3	.105/19.0	.149/13.4	.167/14.6	.151/14.0	.210/12.1	.216/ 8.5	.181/ 9.2	.124/10.1	.058/10.10.000/0000		
21	21	.000/27.3	.025/26.2	.055/23.3	.092/19.0	.128/13.4	.144/15.7	.132/15.7	.178/15.0	.183/ 8.5	.155/ 9.2	.111/10.1	.057/10.10.000/0000		
25	7	.000/ 8.3	.013/ 7.9	.026/39.3	.058/26.2	.187/16.5	.391/ 9.5	.345/ 6.3	.710/ 5.7	.480/ 6.5	.252/ 6.8	.125/ 7.3	.053/ 7.50.000/0000		
9	9	.000/41.9	.014/39.3	.038/33.1	.098/24.2	.237/16.5	.369/ 9.8	.330/ 7.9	.597/ 6.3	.519/ 7.0	.349/ 7.5	.205/ 7.9	.094/ 8.10.000/0000		
11	11	.000/37.0	.020/34.9	.051/29.9	.113/24.2	.231/16.5	.316/10.1	.283/ 9.0	.475/ 7.5	.457/ 7.9	.345/ 8.5	.223/ 8.7	.105/ 9.00.000/0000		
13	13	.000/34.9	.023/33.1	.055/29.9	.102/24.2	.207/16.5	.285/10.8	.238/10.1	.378/ 7.9	.341/ 8.5	.305/ 9.0	.207/ 9.2	.104/ 9.40.000/0000		
15	15	.000/34.9	.024/33.1	.054/29.9	.103/24.2	.180/16.5	.243/11.5	.203/11.6	.306/ 8.1	.315/ 8.7	.260/ 9.2	.181/10.1	.093/10.10.000/0000		
17	17	.000/34.9	.023/33.1	.051/29.9	.093/24.2	.155/16.5	.189/13.1	.174/12.6	.262/ 8.1	.262/ 8.7	.220/ 9.5	.156/10.1	.091/10.10.000/0000		
19	19	.000/34.9	.022/33.1	.047/29.9	.081/24.2	.134/16.5	.162/15.0	.151/14.0	.211/12.1	.220/ 8.7	.181/ 9.5	.134/10.1	.070/10.10.000/0000		
21	21	.000/34.9	.020/33.1	.043/29.9	.074/24.2	.117/16.5	.140/16.5	.132/15.7	.190/13.7	.187/ 9.0	.160/ 9.5	.115/10.1	.060/10.10.000/0000		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS WINDAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 963

LONGCHESSEU
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.082/9.2	.087/11.2	.101/10.5	.136/9.4	.205/8.7	.276/7.1	.214/7.0	.256/6.5	.236/6.7	.157/7.3	.124/7.5	.105/7.7	.100/7.7
	9	.163/12.1	.170/12.1	.130/11.5	.266/10.8	.273/9.8	.306/8.7	.232/9.0	.245/8.1	.309/7.9	.273/8.3	.235/8.5	.212/8.7	.204/8.7
	11	.235/13.4	.241/13.4	.255/13.1	.276/12.1	.296/11.2	.276/10.8	.241/11.2	.285/10.1	.323/9.2	.316/9.5	.298/10.1	.284/9.8	.274/9.8
	13	.276/14.6	.276/14.6	.294/13.7	.294/13.7	.294/13.7	.294/13.7	.294/13.7	.294/13.7	.318/11.5	.326/11.2	.322/11.2	.316/11.2	.316/11.2
	15	.294/15.7	.294/15.7	.298/15.7	.294/15.7	.294/15.7	.294/15.7	.294/15.7	.294/15.7	.307/13.1	.322/12.8	.325/12.6	.325/12.6	.325/12.6
	17	.298/17.5	.298/17.5	.298/17.5	.294/17.5	.294/17.5	.294/17.5	.294/17.5	.294/17.5	.312/14.6	.322/14.3	.320/14.3	.322/14.3	.322/14.3
	19	.297/19.6	.296/19.6	.294/19.6	.294/19.6	.294/19.6	.294/19.6	.294/19.6	.294/19.6	.307/17.0	.311/16.5	.316/16.5	.316/16.5	.316/16.5
	21	.293/22.4	.293/22.4	.290/22.4	.284/21.7	.275/21.7	.263/20.9	.252/20.9	.262/20.3	.281/20.3	.294/19.6	.303/19.4	.307/19.0	.309/19.0
	21	.293/22.4	.293/22.4	.290/22.4	.284/21.7	.275/21.7	.263/20.9	.252/20.9	.262/20.3	.281/20.3	.294/19.6	.303/19.4	.307/19.0	.309/19.0
10	7	.066/13.4	.070/12.8	.084/11.6	.115/11.6	.175/9.8	.261/7.7	.201/7.0	.231/6.7	.207/7.1	.151/7.3	.113/7.5	.094/7.7	.089/7.7
	9	.142/15.0	.149/15.6	.164/14.0	.200/14.6	.261/12.6	.273/11.2	.220/9.2	.263/8.3	.282/8.1	.255/8.3	.224/8.5	.203/8.7	.196/8.7
	11	.211/16.1	.216/15.7	.230/15.0	.250/14.3	.264/12.6	.270/11.6	.229/11.2	.267/10.1	.301/9.5	.299/9.5	.266/10.1	.244/9.8	.230/9.8
	13	.251/17.0	.254/17.0	.261/16.1	.271/15.3	.274/14.3	.269/13.4	.235/12.6	.264/12.1	.299/11.2	.310/11.2	.309/11.2	.305/11.2	.305/11.2
	15	.270/18.5	.272/18.0	.275/17.5	.271/16.5	.274/15.7	.269/14.8	.239/13.7	.260/13.0	.291/13.2	.307/12.8	.311/12.6	.311/12.6	.311/12.6
	17	.277/19.6	.277/19.6	.277/19.6	.274/18.5	.269/17.5	.264/16.6	.241/15.0	.257/14.5	.283/15.0	.299/14.6	.307/14.3	.311/14.3	.312/14.3
	19	.278/21.7	.277/21.7	.276/20.9	.271/20.3	.265/19.6	.253/19.0	.242/18.0	.254/17.5	.275/17.5	.290/17.0	.300/16.5	.304/16.5	.305/16.5
	21	.272/24.2	.276/24.2	.274/24.2	.270/23.3	.262/22.4	.252/21.7	.243/20.9	.253/20.3	.270/20.3	.284/19.6	.292/19.6	.297/19.0	.299/19.0
	21	.272/24.2	.276/24.2	.274/24.2	.270/23.3	.262/22.4	.252/21.7	.243/20.9	.253/20.3	.270/20.3	.284/19.6	.292/19.6	.297/19.0	.299/19.0
15	7	.056/20.3	.059/19.6	.071/17.5	.100/16.3	.154/11.2	.230/8.3	.190/7.0	.216/6.7	.186/7.1	.134/7.3	.099/7.5	.081/7.7	.076/7.7
	9	.127/20.3	.132/19.6	.149/17.5	.180/16.6	.218/12.6	.246/9.8	.209/9.0	.249/8.3	.261/8.3	.235/8.5	.206/8.7	.187/8.7	.181/8.7
	11	.190/20.3	.195/19.6	.207/17.5	.227/15.7	.246/13.7	.246/12.1	.219/11.2	.254/10.1	.292/9.5	.280/9.5	.268/10.1	.257/10.1	.253/9.8
	13	.229/20.3	.232/19.6	.239/18.5	.248/16.5	.254/15.3	.247/14.0	.225/12.6	.252/12.1	.292/11.2	.292/11.2	.292/11.2	.284/11.2	.281/11.2
	15	.249/20.3	.250/19.6	.253/19.0	.257/18.5	.256/17.0	.246/15.3	.230/15.7	.250/15.0	.277/13.4	.292/12.8	.297/12.8	.294/12.6	.294/12.6
	17	.257/21.7	.258/21.7	.254/21.7	.254/20.3	.253/19.5	.243/17.5	.234/16.0	.247/17.5	.270/15.0	.285/14.6	.293/14.6	.296/14.3	.297/14.3
	19	.260/23.3	.260/23.3	.259/23.3	.258/22.4	.251/20.9	.242/19.6	.233/18.0	.245/17.5	.284/17.5	.295/17.0	.297/16.5	.294/16.5	.292/16.5
	21	.261/25.1	.261/25.1	.259/25.1	.258/24.2	.250/23.3	.242/22.4	.236/20.9	.244/20.3	.260/20.3	.272/19.6	.281/19.6	.286/19.0	.287/19.0
	21	.261/25.1	.261/25.1	.259/25.1	.258/24.2	.250/23.3	.242/22.4	.236/20.9	.244/20.3	.260/20.3	.272/19.6	.281/19.6	.286/19.0	.287/19.0
20	7	.056/21.4	.058/20.8	.066/24.2	.084/19.0	.139/13.4	.205/9.0	.181/7.0	.207/6.7	.174/7.1	.123/7.5	.088/7.7	.071/7.7	.066/7.9
	9	.118/27.3	.122/26.2	.135/23.3	.160/19.0	.199/13.4	.224/9.0	.201/9.0	.241/8.3	.248/8.1	.222/8.3	.193/8.5	.174/8.7	.168/8.7
	11	.176/27.3	.178/26.2	.189/23.3	.205/19.0	.226/14.6	.230/12.6	.211/11.2	.244/10.1	.270/9.6	.266/9.5	.253/10.1	.242/10.1	.234/10.1
	13	.212/27.3	.213/26.2	.218/23.3	.227/19.0	.234/16.1	.231/14.6	.217/12.6	.244/12.1	.270/11.6	.278/11.6	.277/11.2	.273/11.2	.272/11.2
	15	.232/27.3	.232/26.2	.234/23.3	.237/19.0	.234/16.0	.232/14.6	.221/15.7	.242/15.0	.266/13.4	.278/13.1	.283/12.6	.283/12.6	.283/12.6
	17	.241/27.3	.240/26.2	.240/23.3	.240/19.0	.234/16.0	.231/14.6	.223/14.0	.239/14.5	.260/17.0	.273/14.6	.280/14.5	.283/14.3	.284/14.3
	19	.245/27.3	.244/26.2	.244/23.3	.241/24.6	.237/21.7	.231/20.3	.225/18.0	.237/17.5	.254/17.5	.267/17.0	.275/16.5	.279/16.5	.280/16.5
	21	.247/27.3	.246/26.2	.244/23.3	.241/24.6	.238/24.2	.232/22.4	.228/20.9	.237/20.3	.251/20.3	.262/19.6	.270/19.0	.274/19.0	.276/19.0
	21	.247/27.3	.246/26.2	.244/23.3	.241/24.6	.238/24.2	.232/22.4	.228/20.9	.237/20.3	.251/20.3	.262/19.6	.270/19.0	.274/19.0	.276/19.0
25	7	.056/22.8	.060/22.8	.066/24.2	.081/20.8	.139/13.4	.205/9.0	.181/7.0	.207/6.7	.174/7.1	.123/7.5	.088/7.7	.071/7.7	.066/7.9
	9	.118/27.3	.122/26.2	.135/23.3	.160/19.0	.199/13.4	.224/9.0	.201/9.0	.241/8.3	.248/8.1	.222/8.3	.193/8.5	.174/8.7	.168/8.7
	11	.176/27.3	.178/26.2	.189/23.3	.205/19.0	.226/14.6	.230/12.6	.211/11.2	.244/10.1	.270/9.6	.266/9.5	.253/10.1	.242/10.1	.234/10.1
	13	.212/27.3	.213/26.2	.218/23.3	.227/19.0	.234/16.1	.231/14.6	.217/12.6	.244/12.1	.270/11.6	.278/11.6	.277/11.2	.273/11.2	.272/11.2
	15	.232/27.3	.232/26.2	.234/23.3	.237/19.0	.234/16.0	.232/14.6	.221/15.7	.242/15.0	.266/13.4	.278/13.1	.283/12.6	.283/12.6	.283/12.6
	17	.241/27.3	.240/26.2	.240/23.3	.240/19.0	.234/16.0	.231/14.6	.223/14.0	.239/14.5	.260/17.0	.273/14.6	.280/14.5	.283/14.3	.284/14.3
	19	.245/27.3	.244/26.2	.244/23.3	.241/24.6	.237/21.7	.231/20.3	.225/18.0	.237/17.5	.254/17.5	.267/17.0	.275/16.5	.279/16.5	.280/16.5
	21	.247/27.3	.246/26.2	.244/23.3	.241/24.6	.238/24.2	.232/22.4	.228/20.9	.237/20.3	.251/20.3	.262/19.6	.270/19.0	.274/19.0	.276/19.0
	21	.247/27.3	.246/26.2	.244/23.3	.241/24.6	.238/24.2	.232/22.4	.228/20.9	.237/20.3	.251/20.3	.262/19.6	.270/19.0	.274/19.0	.276/19.0
	7	.060/23.9	.064/23.1	.071/29.9	.091/26.2	.147/16.5	.217/11.2	.173/7.0	.203/7.0	.166/7.1	.115/7.7	.081/7.9	.055/7.9	.050/8.1
	9	.116/44.3	.119/44.9	.127/31.6	.143/28.2	.174/16.5	.207/11.6	.144/9.0	.239/8.3	.243/7.9	.216/8.3	.188/8.5	.169/8.7	.163/8.7
	11	.167/34.9	.169/33.1	.174/29.9	.184/28.2	.205/16.5	.215/13.1	.203/11.2	.242/10.1	.264/9.8	.259/9.8	.246/10.1	.236/9.8	.234/9.8
	13	.199/34.9	.200/33.1	.202/29.9	.209/28.2	.216/16.5	.229/15.0	.209/12.6	.264/12.6	.264/11.6	.271/11.6	.269/11.2	.264/11.2	.263/11.2
	15	.217/34.9	.217/33.1	.217/29.9	.217/28.2	.221/16.5	.214/15.7	.236/15.7	.264/15.7	.264/14.6	.270/13.1	.274/12.6	.274/12.6	.274/12.6
	17	.226/34.9	.226/33.1	.224/29.9	.224/28.2	.228/16.5	.219/16.5	.241/16.5	.264/16.5	.264/15.5	.271/14.6	.271/14.6	.271/14.6	.271/14.6
	19	.231/34.9	.230/33.1	.224/29.9	.224/28.2	.228/16.5	.219/16.5	.241/16.5	.264/16.5	.264/15.5	.271/14.6	.271/14.6	.271/14.6	.271/14.6
	21	.234/34.9	.233/33.1	.224/29.9	.224/28.2	.228/16.5	.219/16.5	.241/16.5	.264/16.5	.264/15.5	.271/14.6	.271/14.6	.271/14.6	.271/14.6
	21	.234/34.9	.233/33.1	.224/29.9	.224/28.2	.228/16.5	.219/16.5	.241/16.5	.264/16.5	.264/15.5	.271/14.6	.271/14.6	.271/14.6	.271/14.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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LUNGCRESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.054/ 9.2	.058/ 9.0	.069/10.5	.071/ 9.5	.159/ 9.3	.214/ 6.7	.217/ 5.7	.256/ 6.3	.224/ 6.7	.154/ 6.8	.116/ 7.3	.102/ 7.5	.098/ 5.7	
9	9	.088/12.1	.092/12.0	.107/11.2	.136/10.5	.165/ 9.2	.246/ 7.5	.196/ 7.9	.248/ 7.0	.258/ 7.1	.217/ 7.9	.183/ 8.1	.164/ 8.3	.158/ 8.3	
11	11	.114/13.4	.118/13.1	.130/12.1	.150/11.6	.160/10.1	.210/ 8.7	.173/ 9.5	.217/ 8.3	.241/ 8.1	.225/ 8.7	.206/ 9.0	.194/ 9.0	.190/ 9.0	
13	13	.123/14.3	.126/13.4	.134/13.1	.148/12.6	.164/11.6	.210/10.1	.154/11.6	.188/10.8	.213/ 9.0	.210/ 9.2	.202/10.1	.195/10.1	.193/10.1	
15	15	.123/14.6	.124/14.6	.130/14.3	.138/13.7	.148/13.4	.156/13.0	.137/14.0	.153/12.1	.187/11.6	.189/11.2	.187/11.2	.184/11.2	.183/11.2	
17	17	.117/15.7	.118/15.7	.121/15.3	.127/15.0	.132/14.6	.137/14.6	.123/15.7	.144/13.7	.164/13.1	.169/12.6	.169/12.6	.169/12.6	.168/12.6	
19	19	.104/17.5	.110/17.5	.112/17.0	.116/17.0	.119/16.5	.121/16.5	.112/16.5	.128/15.3	.144/15.0	.150/13.1	.152/12.6	.153/12.6	.153/12.6	
21	21	.101/18.0	.102/17.5	.103/17.5	.106/17.0	.108/16.5	.109/16.5	.102/16.0	.115/17.5	.129/17.0	.135/14.0	.137/14.3	.138/14.3	.139/14.3	
10	7	.030/13.4	.032/12.8	.042/11.6	.065/11.6	.116/ 9.5	.223/ 7.3	.202/ 6.3	.231/ 6.3	.212/ 6.7	.154/ 6.8	.118/ 7.3	.102/ 7.5	.097/ 7.5	
9	9	.059/15.0	.063/14.6	.076/13.7	.101/12.6	.142/10.5	.205/ 8.3	.185/ 7.9	.237/ 7.3	.253/ 7.7	.224/ 7.9	.195/ 8.1	.177/ 8.3	.171/ 8.3	
11	11	.083/15.7	.086/15.3	.097/14.3	.117/13.1	.144/11.6	.178/ 9.8	.164/ 9.8	.210/ 8.3	.240/ 8.3	.219/ 8.7	.216/ 9.0	.211/ 9.0	.207/ 9.0	
13	13	.093/17.0	.096/16.1	.104/15.3	.118/14.3	.135/12.6	.155/12.1	.131/14.0	.159/12.1	.187/10.8	.197/10.5	.199/10.1	.194/10.1	.194/10.1	
15	15	.095/17.0	.097/17.0	.103/16.1	.112/15.3	.124/14.3	.136/13.7	.113/14.0	.141/13.7	.164/13.1	.175/12.8	.179/12.6	.181/12.6	.181/12.6	
17	17	.092/18.5	.094/18.0	.098/17.5	.105/16.5	.113/15.7	.121/15.0	.104/15.7	.125/15.3	.145/15.0	.153/14.6	.161/14.6	.163/14.6	.164/14.6	
19	19	.087/19.6	.089/19.6	.092/19.0	.097/18.5	.103/17.5	.109/16.5	.094/17.0	.113/17.5	.130/17.0	.139/16.5	.145/14.6	.147/14.3	.148/14.3	
21	21	.083/20.3	.083/20.3	.086/20.3	.090/20.3	.094/19.6	.099/19.0	.084/19.0	.113/17.5	.130/17.0	.139/16.5	.145/14.6	.147/14.3	.148/14.3	
15	7	.016/20.3	.018/19.6	.025/17.5	.043/17.5	.066/11.2	.150/ 7.9	.190/ 6.3	.235/ 6.3	.205/ 6.7	.159/ 7.3	.113/ 7.5	.096/ 7.5	.091/ 7.7	
9	9	.034/20.3	.042/19.6	.053/17.5	.074/17.5	.112/11.2	.170/ 9.0	.175/ 7.9	.236/ 7.0	.250/ 7.7	.225/ 7.9	.194/ 8.3	.160/ 8.3	.175/ 8.3	
11	11	.058/20.3	.061/19.6	.071/17.5	.089/15.3	.117/12.8	.152/11.2	.156/ 9.8	.208/ 8.5	.239/ 8.3	.239/ 8.7	.227/ 9.0	.218/ 9.0	.219/ 9.0	
13	13	.064/20.3	.071/19.6	.080/17.5	.093/16.1	.112/11.2	.135/12.8	.139/11.6	.181/10.1	.214/ 9.2	.223/ 9.5	.223/10.1	.220/10.1	.219/10.1	
15	15	.072/20.3	.074/19.6	.080/17.5	.090/17.5	.104/11.2	.120/14.0	.125/14.0	.158/12.1	.188/10.8	.201/10.5	.206/11.6	.207/11.2	.207/11.2	
17	17	.072/20.3	.073/19.6	.078/17.5	.086/18.5	.096/17.0	.108/15.3	.111/15.7	.134/13.7	.165/13.1	.179/12.8	.186/11.6	.188/11.2	.189/12.1	
19	19	.069/20.3	.071/21.7	.074/20.3	.081/20.3	.089/17.5	.107/17.5	.103/17.7	.124/15.3	.146/15.0	.159/14.6	.166/14.3	.170/14.3	.171/14.0	
21	21	.067/23.3	.068/22.4	.071/21.7	.076/21.7	.082/20.3	.090/19.0	.094/18.0	.112/17.5	.130/17.0	.142/16.5	.149/14.6	.153/14.3	.154/14.3	
20	7	.012/29.9	.012/28.6	.015/24.2	.028/17.0	.064/13.4	.156/ 8.5	.179/ 6.5	.234/ 6.5	.203/ 7.0	.156/ 7.3	.109/ 7.5	.091/ 7.7	.085/ 7.7	
9	9	.025/27.3	.027/26.2	.035/23.3	.053/19.6	.084/13.4	.142/ 9.5	.167/ 7.9	.236/ 7.0	.254/ 7.5	.224/ 7.9	.202/ 8.1	.184/ 8.3	.178/ 8.3	
11	11	.040/27.3	.042/26.2	.050/23.3	.067/19.6	.094/13.3	.159/11.6	.149/ 9.5	.210/ 8.3	.244/ 8.3	.244/ 8.7	.230/ 9.0	.225/ 9.0	.222/ 9.0	
13	13	.044/27.3	.046/26.2	.054/23.3	.071/19.6	.092/13.3	.117/13.4	.134/11.6	.182/10.1	.217/ 9.2	.229/ 9.5	.230/10.1	.228/10.1	.227/10.1	
15	15	.053/27.3	.055/26.2	.061/23.3	.078/19.6	.094/13.3	.120/14.0	.120/14.0	.159/12.1	.191/10.8	.206/10.5	.212/11.2	.214/11.2	.214/11.2	
17	17	.055/27.3	.056/26.2	.061/23.3	.078/19.6	.094/13.3	.120/14.0	.120/14.0	.159/12.1	.191/10.8	.206/10.5	.212/11.2	.214/11.2	.214/11.2	
19	19	.054/27.3	.056/26.2	.061/23.3	.078/19.6	.094/13.3	.120/14.0	.120/14.0	.159/12.1	.191/10.8	.206/10.5	.212/11.2	.214/11.2	.214/11.2	
21	21	.053/27.3	.054/26.2	.058/23.3	.067/19.6	.077/17.6	.099/18.0	.099/18.0	.124/15.3	.148/15.0	.163/14.6	.171/14.3	.176/12.6	.177/12.6	
25	7	.017/ 7.1	.018/ 7.1	.013/39.3	.018/25.1	.046/16.5	.119/ 9.2	.170/ 6.5	.236/ 6.5	.203/ 7.1	.146/ 7.5	.106/ 7.7	.087/ 7.9	.082/ 7.9	
9	9	.017/41.9	.019/37.0	.022/31.4	.035/24.2	.066/16.5	.120/10.5	.160/ 7.9	.242/ 7.0	.263/ 7.7	.240/ 7.9	.212/ 8.3	.193/ 8.5	.186/ 8.5	
11	11	.026/34.9	.028/33.1	.034/29.9	.047/24.2	.074/16.5	.112/12.1	.144/ 9.5	.215/ 7.1	.253/ 7.7	.256/ 8.3	.248/ 8.5	.239/ 8.7	.235/ 8.7	
13	13	.033/34.9	.035/33.1	.041/29.9	.053/24.2	.074/16.5	.112/12.1	.144/ 9.5	.215/ 7.1	.253/ 7.7	.256/ 8.3	.248/ 8.5	.239/ 8.7	.235/ 8.7	
15	15	.038/34.9	.040/33.1	.045/29.9	.055/24.2	.072/16.5	.109/15.3	.116/14.6	.161/12.1	.191/10.8	.215/10.5	.223/11.2	.225/11.2	.226/10.8	
17	17	.040/34.9	.042/33.1	.047/29.9	.055/24.2	.072/16.5	.109/15.3	.116/14.6	.161/12.1	.191/10.8	.215/10.5	.223/11.2	.225/11.2	.226/10.8	
19	19	.041/34.9	.043/33.1	.047/29.9	.055/24.2	.072/16.5	.109/15.3	.116/14.6	.161/12.1	.191/10.8	.215/10.5	.223/11.2	.225/11.2	.226/10.8	
21	21	.042/34.9	.043/33.1	.047/29.9	.055/24.2	.072/16.5	.109/15.3	.116/14.6	.161/12.1	.191/10.8	.215/10.5	.223/11.2	.225/11.2	.226/10.8	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU #63

LONGCRESTED
RMS VLR ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

(ACC. X 100)

AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM HL

VIT	SHIP HEADING ANGLE IN DEGREES											180
	0	15	30	45	60	75	90	105	120	135	150	
5	7 117/ 9.2	127/ 9.0	154/ 8.5	226/ 9.2	400/ 8.1	509/ 6.4	741/ 5.2	841/ 5.7	694/ 6.3	471/ 6.8	366/ 7.1	332/ 5.2
9	154/11.6	164/11.6	198/11.2	270/10.8	411/ 8.7	568/ 6.7	729/ 6.5	729/ 6.5	714/ 6.7	571/ 7.5	473/ 7.9	327/ 8.1
11	179/12.6	187/12.6	215/12.1	270/10.8	355/ 9.2	525/ 6.8	661/ 7.9	555/ 6.7	615/ 7.1	540/ 7.9	479/ 8.5	445/ 8.7
13	180/13.4	187/13.4	207/12.6	246/11.6	311/ 9.8	415/ 7.1	367/ 8.7	466/ 7.0	506/ 7.7	468/ 8.3	433/ 8.7	412/ 9.0
15	188/14.3	173/13.4	188/13.1	216/12.1	261/10.8	334/ 7.1	299/11.2	376/ 7.0	415/ 7.7	396/ 8.5	375/ 9.2	363/ 9.2
17	152/14.6	156/14.3	187/14.0	188/12.6	221/11.2	274/ 7.1	287/12.6	309/ 7.3	343/ 7.9	333/ 8.7	321/ 9.2	314/10.1
19	136/14.6	139/14.6	147/14.3	183/12.6	188/11.6	228/ 7.1	284/12.6	257/ 7.3	283/ 7.9	282/ 9.0	275/ 9.2	269/10.1
21	121/15.7	123/15.7	130/14.3	142/13.7	161/12.1	173/ 7.3	177/14.0	218/ 7.5	243/ 7.9	241/ 9.0	236/10.1	233/10.8
10	7 142/13.4	147/12.8	166/11.6	116/11.2	245/ 9.5	419/ 6.8	689/ 5.7	831/ 5.7	709/ 6.5	522/ 6.8	417/ 7.1	370/ 5.7
9	178/15.0	185/14.6	194/13.7	162/12.1	271/10.8	515/ 7.3	550/ 6.3	731/ 6.5	753/ 7.1	653/ 7.5	567/ 7.9	517/ 8.1
11	102/15.3	109/15.0	131/14.3	114/12.8	253/10.8	410/ 7.7	493/ 7.9	589/ 7.0	656/ 7.1	621/ 7.9	577/ 8.5	547/ 8.7
13	104/16.1	115/15.7	132/15.3	115/13.4	222/11.6	328/ 8.1	366/ 8.7	470/ 7.0	542/ 7.7	539/ 8.3	520/ 8.7	505/ 9.0
15	106/17.0	111/16.5	124/15.3	114/12.1	191/12.1	267/ 8.3	282/11.2	380/ 7.5	445/ 7.9	454/ 8.5	448/ 9.2	440/ 9.2
17	99/17.0	103/17.0	113/16.1	133/14.3	154/12.6	221/12.1	234/12.6	312/ 7.5	368/ 7.9	382/ 8.7	382/ 9.2	381/ 9.8
19	91/18.0	99/18.0	102/16.5	117/13.3	142/13.3	186/13.4	187/12.6	260/ 7.5	308/ 8.1	322/ 9.0	326/ 9.2	325/10.1
21	82/18.5	88/18.0	99/17.5	103/13.3	123/14.3	159/14.5	188/14.0	220/ 7.5	261/ 8.1	274/ 9.0	279/ 9.2	281/10.1
15	7 152/20.3	168/19.6	188/17.5	109/14.3	150/10.8	454/ 7.5	642/ 5.7	844/ 6.3	731/ 6.7	544/ 6.8	435/ 7.1	386/ 7.3
9	138/20.3	142/19.6	158/17.5	111/13.6	182/11.6	388/ 8.1	517/ 6.7	751/ 6.3	796/ 7.1	712/ 7.5	630/ 7.9	580/ 8.1
11	156/20.3	160/19.6	176/17.5	111/13.0	174/12.6	316/ 8.5	494/ 7.5	607/ 6.5	694/ 7.1	685/ 8.1	651/ 8.5	626/ 8.7
13	164/20.3	168/19.6	182/17.5	110/13.7	161/13.1	256/ 9.2	328/ 8.7	485/ 7.0	579/ 7.7	596/ 8.3	580/ 8.7	581/ 9.0
15	165/20.3	169/19.6	189/18.0	110/13.7	142/13.7	213/11.6	268/11.2	392/ 7.0	476/ 7.9	503/ 8.7	509/ 9.2	509/ 9.2
17	163/20.3	166/19.6	175/18.5	109/13.6	124/14.6	179/12.6	222/12.6	322/ 7.0	394/ 8.1	422/ 8.7	433/ 9.2	438/ 9.8
19	159/20.3	162/19.6	169/18.0	104/17.5	109/15.3	152/14.0	188/12.6	268/ 7.5	329/ 8.1	356/ 9.0	369/ 9.2	375/10.1
21	155/20.3	157/19.6	163/17.5	105/17.5	109/15.3	131/15.3	160/14.0	227/ 7.5	278/ 8.3	303/ 9.0	316/ 9.2	322/10.1
20	7 124/ 6.8	124/26.6	117/24.2	128/13.0	192/13.4	324/ 8.3	601/ 6.3	868/ 6.3	788/ 6.7	575/ 7.0	452/ 7.3	393/ 7.5
9	122/27.3	124/26.2	130/23.3	105/19.0	121/13.4	242/ 9.0	488/ 6.7	786/ 6.5	861/ 7.1	785/ 7.5	698/ 7.9	643/ 8.1
11	130/27.3	133/26.2	142/23.3	105/19.0	124/13.4	246/ 9.5	388/ 7.5	637/ 6.5	759/ 7.1	761/ 7.9	732/ 8.1	706/ 8.5
13	136/27.3	139/26.2	148/23.3	104/19.0	115/14.3	205/11.6	312/ 8.5	509/ 6.7	629/ 7.5	662/ 8.1	664/ 8.7	658/ 9.0
15	137/27.3	141/26.2	150/23.3	104/19.0	104/15.0	172/12.6	255/11.2	411/ 6.7	517/ 7.7	558/ 8.3	573/ 9.0	577/ 9.2
17	133/27.3	141/26.2	149/23.3	104/19.0	93/15.1	146/13.4	212/12.6	336/ 6.7	427/ 7.7	468/ 8.5	487/ 9.2	496/ 9.8
19	138/27.3	140/26.2	146/23.3	103/19.0	83/17.0	126/14.6	179/12.6	280/ 6.7	356/ 7.7	394/ 8.7	414/ 9.2	424/ 9.8
21	136/27.3	138/26.2	144/23.3	105/19.0	67/14.0	109/16.1	153/14.0	236/ 7.0	301/ 7.7	335/ 9.0	354/ 9.2	364/10.1
25	7 159/ 7.1	168/ 6.7	136/ 6.3	105/25.1	153/15.5	241/ 9.2	566/ 6.3	898/ 6.3	808/ 7.0	506/ 7.3	470/ 7.5	405/ 7.7
9	139/ 7.1	144/ 6.7	126/29.9	102/24.2	176/16.5	224/ 9.5	454/ 7.3	832/ 6.5	940/ 7.5	785/ 7.7	785/ 8.1	724/ 8.3
11	129/34.9	133/33.1	126/29.9	103/24.2	153/16.5	193/12.2	370/ 7.3	671/ 6.7	836/ 7.5	858/ 7.9	836/ 8.3	811/ 8.5
13	126/34.9	129/33.1	129/29.9	104/24.2	151/16.5	165/12.1	298/ 8.5	541/ 7.0	694/ 7.7	748/ 8.1	758/ 8.7	758/ 9.0
15	125/34.9	128/33.1	131/29.9	104/24.2	151/16.5	141/13.1	284/11.2	435/ 7.0	559/ 7.7	629/ 8.3	654/ 8.7	663/ 9.0
17	125/34.9	128/33.1	131/29.9	104/24.2	151/16.5	121/14.3	204/12.6	356/ 7.0	459/ 7.7	527/ 8.3	555/ 8.7	568/ 9.0
19	125/34.9	127/33.1	131/29.9	104/24.2	151/16.5	105/16.1	172/12.6	296/ 7.0	391/ 7.7	443/ 8.3	471/ 8.5	485/ 9.0
21	125/34.9	126/33.1	130/29.9	103/24.2	151/16.5	109/16.1	147/14.0	249/ 7.0	330/ 7.7	376/ 8.3	402/ 8.7	415/ 9.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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LUNCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
HELICOPTER DECK BULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES										140	
		0	15	30	45	60	75	90	105	120	135		150
5	7	.000/11.2	.038/11.2	.063/10.8	.092/10.5	.142/9.2	.196/8.3	.168/7.9	.185/7.0	.130/7.1	.069/7.7	.034/7.9	.015/8.10.000/0000
	9	.000/11.2	.059/11.2	.106/11.2	.167/10.8	.227/10.5	.257/10.5	.227/10.1	.258/9.8	.225/9.5	.156/9.5	.095/10.1	.046/10.10.000/0000
	11	.000/11.2	.059/11.2	.111/11.2	.175/10.8	.231/10.8	.272/10.5	.243/10.5	.290/10.8	.271/10.8	.209/11.2	.147/11.2	.076/11.20.000/0000
	13	.000/11.2	.056/11.2	.107/11.2	.165/11.2	.213/10.8	.231/10.5	.234/10.5	.280/10.8	.271/11.2	.217/11.2	.152/11.2	.084/11.20.000/0000
	15	.000/11.2	.057/11.2	.109/11.2	.162/11.2	.213/10.8	.221/10.8	.227/10.5	.261/10.8	.252/10.8	.205/11.2	.145/11.2	.080/11.20.000/0000
	17	.000/11.2	.059/11.2	.113/11.2	.163/11.2	.213/10.8	.218/10.8	.224/10.8	.246/10.8	.234/10.8	.191/11.2	.136/11.2	.074/11.20.000/0000
10	7	.000/11.2	.061/11.2	.117/11.2	.165/11.2	.213/10.8	.220/10.8	.225/10.9	.237/10.8	.222/10.8	.181/11.2	.128/11.2	.069/11.20.000/0000
	9	.000/22.4	.063/22.4	.120/22.4	.169/22.4	.205/21.7	.223/20.9	.227/20.9	.232/20.3	.216/20.3	.174/19.6	.123/11.2	.065/11.20.000/0000
	11	.000/13.4	.045/12.8	.154/11.5	.145/10.1	.167/10.1	.211/8.5	.164/7.9	.165/7.0	.108/7.5	.056/7.7	.027/7.9	.011/8.10.000/0000
	13	.000/13.4	.052/12.8	.143/11.5	.144/11.5	.197/10.5	.254/9.8	.217/9.8	.225/9.5	.163/9.2	.122/9.2	.071/9.2	.034/9.20.000/0000
	15	.000/13.4	.055/13.1	.127/11.5	.141/11.5	.199/10.8	.239/10.5	.231/10.5	.254/10.8	.226/10.5	.170/11.2	.112/11.2	.059/11.20.000/0000
	17	.000/18.0	.061/18.0	.124/11.5	.146/11.5	.194/10.8	.227/10.5	.224/10.5	.239/11.2	.233/11.2	.187/11.6	.131/11.2	.074/12.60.000/0000
15	7	.000/19.6	.066/19.6	.124/11.5	.159/18.5	.200/17.5	.217/16.5	.220/15.7	.239/11.2	.225/11.6	.184/11.6	.133/12.6	.076/12.60.000/0000
	9	.000/20.3	.069/19.6	.132/11.5	.169/20.3	.205/19.5	.219/18.5	.220/18.0	.229/17.5	.213/11.6	.176/11.6	.127/12.6	.072/12.60.000/0000
	11	.000/21.7	.071/21.7	.135/21.7	.175/20.9	.210/19.6	.223/19.0	.222/20.9	.224/20.3	.205/19.6	.168/11.6	.121/12.6	.067/12.60.000/0000
	13	.000/24.2	.072/24.2	.137/24.2	.181/23.3	.214/22.4	.227/21.7	.225/20.9	.222/20.3	.200/20.3	.163/19.6	.116/19.6	.064/12.60.000/0000
	15	.000/7.3	.098/0000	.097/17.5	.137/14.3	.175/11.2	.220/9.0	.159/7.9	.148/7.5	.091/7.7	.045/7.7	.021/8.1	.009/8.10.000/0000
	17	.000/7.3	.085/19.6	.118/17.5	.153/14.3	.184/11.2	.225/9.8	.204/9.5	.200/9.2	.153/9.0	.094/9.0	.054/9.2	.027/9.20.000/0000
20	7	.000/20.3	.086/19.6	.137/17.5	.158/14.3	.183/11.5	.228/10.5	.219/10.5	.227/10.8	.191/10.8	.140/11.2	.092/11.2	.047/11.20.000/0000
	9	.000/20.3	.089/19.6	.150/17.5	.167/17.5	.191/17.0	.216/10.5	.216/10.5	.230/12.1	.204/11.6	.160/12.8	.112/12.6	.061/12.60.000/0000
	11	.000/20.3	.090/19.6	.157/20.3	.191/17.0	.204/14.5	.216/17.0	.216/15.7	.224/12.1	.203/12.1	.164/12.8	.117/12.6	.064/12.60.000/0000
	13	.000/20.3	.089/19.6	.159/21.7	.193/20.3	.215/20.3	.224/19.0	.218/18.0	.218/17.5	.197/13.1	.160/12.8	.115/12.8	.063/12.60.000/0000
	15	.000/20.3	.088/22.4	.159/23.3	.202/22.4	.222/20.9	.224/19.6	.221/20.9	.215/20.3	.192/19.6	.155/12.8	.111/12.8	.060/12.60.000/0000
	17	.000/25.1	.087/25.1	.159/24.2	.205/23.1	.227/23.3	.239/22.4	.225/20.9	.214/20.3	.190/20.3	.152/19.6	.104/19.6	.057/12.60.000/0000
25	7	.000/0000	.130/8.3	.223/7.5	.221/14.0	.157/13.4	.240/9.2	.154/7.9	.135/7.5	.080/7.7	.039/7.7	.014/8.1	.007/8.10.000/0000
	9	.000/0000	.134/26.2	.223/23.3	.232/14.0	.155/13.4	.250/10.1	.204/9.5	.184/9.2	.136/9.0	.085/9.0	.049/9.2	.022/9.20.000/0000
	11	.000/0000	.128/26.2	.219/23.3	.249/14.0	.161/13.4	.229/10.5	.217/10.5	.213/11.2	.173/10.8	.122/11.2	.078/11.2	.039/11.20.000/0000
	13	.000/0000	.124/26.2	.214/23.3	.249/14.0	.202/16.1	.221/16.1	.220/12.1	.200/12.1	.143/12.8	.094/12.6	.052/12.60.000/0000	
	15	.000/0000	.123/26.2	.213/23.3	.249/14.0	.223/17.6	.225/17.5	.215/15.7	.217/12.1	.193/13.1	.150/12.8	.105/14.3	.057/14.30.000/0000
	17	.000/0000	.118/26.2	.206/23.3	.247/14.0	.235/20.3	.232/19.6	.227/18.0	.212/17.5	.189/13.1	.149/14.6	.105/14.3	.057/14.30.000/0000
25	7	.000/0000	.113/26.2	.199/23.3	.243/22.4	.242/21.7	.237/20.3	.221/20.3	.210/20.3	.185/19.6	.146/14.6	.103/14.3	.056/14.30.000/0000
	9	.000/0000	.109/26.2	.194/23.3	.240/24.2	.245/24.2	.242/22.4	.224/20.9	.209/20.3	.182/20.3	.144/19.6	.101/14.3	.054/14.30.000/0000
	11	.000/0000	.142/9.8	.252/8.7	.356/31.4	.250/16.5	.256/9.8	.157/7.9	.123/7.5	.070/7.7	.033/7.7	.015/7.9	.006/8.10.000/0000
	13	.000/0000	.204/9.8	.330/37.0	.350/24.2	.244/16.5	.250/10.1	.201/9.5	.170/9.2	.120/9.0	.074/9.2	.042/9.2	.019/9.20.000/0000
	15	.000/0000	.216/34.9	.343/29.9	.369/24.2	.254/16.5	.248/10.5	.215/10.5	.199/11.2	.155/10.8	.108/11.2	.068/11.2	.033/11.20.000/0000
	17	.000/0000	.209/33.1	.329/29.9	.350/24.2	.265/16.5	.225/16.5	.214/10.5	.209/12.1	.174/13.1	.129/12.8	.087/12.8	.045/14.30.000/0000
25	7	.000/0000	.195/33.1	.310/29.9	.332/24.2	.274/17.6	.233/16.0	.215/15.7	.201/12.6	.160/13.1	.138/14.6	.097/14.3	.052/14.30.000/0000
	9	.000/0000	.181/33.1	.290/29.9	.316/24.2	.277/20.9	.240/20.3	.217/18.0	.206/17.5	.178/14.6	.140/14.6	.100/14.3	.054/14.30.000/0000
	11	.000/0000	.164/33.1	.272/29.9	.302/24.2	.278/23.3	.246/20.3	.220/20.9	.204/20.3	.176/15.0	.139/14.6	.099/14.6	.053/14.30.000/0000
	13	.000/0000	.157/33.1	.257/24.9	.292/24.2	.277/23.3	.251/23.3	.224/20.9	.204/20.3	.174/20.3	.137/19.6	.097/14.6	.052/14.30.000/0000
	15	.000/0000	.157/33.1	.257/24.9	.292/24.2	.277/23.3	.251/23.3	.224/20.9	.204/20.3	.174/20.3	.137/19.6	.097/14.6	.052/14.30.000/0000
	17	.000/0000	.157/33.1	.257/24.9	.292/24.2	.277/23.3	.251/23.3	.224/20.9	.204/20.3	.174/20.3	.137/19.6	.097/14.6	.052/14.30.000/0000

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 463

LONGCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM RL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/11.2	.024/9.5	.041/10.8	.051/10.1	.069/9.2	.159/7.9	.156/7.3	.176/6.5	.116/7.1	.060/7.5	.030/7.7	.013/7.9	.000/8.0
	9	.000/11.2	.034/11.2	.062/11.2	.100/10.8	.146/10.1	.185/9.5	.172/9.5	.200/9.0	.168/8.5	.112/9.0	.067/9.2	.032/9.4	.000/9.6
	11	.000/11.2	.033/11.2	.062/11.2	.101/10.8	.142/10.5	.170/10.5	.165/10.5	.200/10.8	.171/10.5	.137/10.5	.090/10.1	.047/11.2	.000/10.8
	13	.000/11.2	.029/11.2	.056/11.2	.090/10.8	.124/10.5	.145/10.5	.124/10.5	.179/10.8	.151/10.8	.121/10.5	.085/11.2	.040/11.2	.000/10.8
	15	.000/11.2	.026/11.2	.051/11.2	.085/10.8	.107/10.8	.124/10.5	.124/10.5	.155/10.8	.131/10.8	.106/11.2	.075/11.2	.041/11.2	.000/10.8
	17	.000/11.2	.024/11.2	.047/11.2	.072/10.8	.095/10.8	.109/10.5	.113/10.5	.135/10.8	.114/10.8	.093/11.2	.066/11.2	.036/11.2	.000/10.8
10	7	.000/13.4	.021/19.6	.041/19.6	.061/13.6	.079/19.0	.089/18.5	.093/18.0	.105/10.8	.093/11.2	.059/11.2	.032/11.2	.000/10.8	.000/10.8
	9	.000/13.4	.022/12.8	.082/11.6	.067/10.1	.107/9.8	.163/8.1	.153/7.3	.177/7.0	.106/7.1	.054/7.5	.026/7.7	.011/7.9	.000/8.0
	11	.000/13.4	.024/12.8	.074/11.6	.095/10.1	.133/10.5	.176/9.5	.166/9.2	.186/8.5	.150/8.3	.098/8.7	.057/8.7	.027/9.0	.000/8.0
	13	.000/13.4	.024/13.1	.062/11.6	.074/11.6	.120/10.8	.157/10.1	.157/10.1	.183/10.8	.163/10.5	.120/10.5	.078/11.2	.040/11.2	.000/8.0
	15	.000/13.4	.024/13.1	.055/11.6	.065/11.6	.105/10.8	.133/10.1	.133/10.1	.165/10.8	.155/10.8	.122/11.2	.085/11.2	.046/11.2	.000/8.0
	17	.000/13.4	.024/18.5	.048/11.6	.051/11.6	.093/10.8	.116/10.5	.123/10.5	.145/10.8	.139/11.6	.113/11.6	.081/11.2	.045/11.2	.000/8.0
15	7	.000/20.3	.023/19.6	.048/11.6	.052/11.6	.086/10.8	.103/10.5	.110/10.5	.127/11.2	.122/11.6	.101/11.6	.073/11.6	.042/11.6	.000/8.0
	9	.000/20.3	.022/20.3	.045/20.9	.060/20.3	.079/19.0	.094/19.0	.099/18.0	.112/11.2	.108/11.6	.090/11.6	.065/12.6	.037/12.6	.000/8.0
	11	.000/20.3	.022/20.3	.045/20.9	.060/20.3	.079/19.0	.094/19.0	.099/18.0	.112/11.2	.108/11.6	.090/11.6	.065/12.6	.037/12.6	.000/8.0
	13	.000/20.3	.021/21.7	.042/21.7	.057/20.9	.074/19.6	.086/19.0	.091/18.0	.100/11.2	.096/11.6	.080/11.6	.058/12.6	.033/12.6	.000/8.0
	15	.000/20.3	.019/19.6	.024/17.5	.051/14.3	.101/11.2	.161/8.5	.149/7.3	.157/7.0	.097/7.1	.048/7.5	.023/7.7	.010/7.9	.000/8.0
	17	.000/20.3	.024/19.6	.046/17.5	.082/14.3	.075/11.6	.107/10.5	.107/10.5	.121/12.1	.115/12.1	.095/12.8	.069/12.6	.034/12.6	.000/8.0
20	7	.000/20.3	.023/22.4	.043/23.3	.059/22.4	.071/20.9	.094/19.0	.089/18.0	.097/20.3	.092/12.1	.077/12.8	.056/12.6	.031/12.6	.000/8.0
	9	.000/27.3	.016/31.4	.027/25.1	.047/19.0	.070/13.4	.165/9.0	.148/7.3	.151/7.0	.091/7.1	.045/7.5	.021/7.7	.009/7.9	.000/8.0
	11	.000/27.3	.022/26.2	.044/23.3	.067/19.0	.069/13.4	.161/9.0	.158/9.0	.167/8.3	.129/8.3	.082/8.7	.047/9.0	.022/9.0	.000/8.0
	13	.000/27.3	.026/26.2	.052/23.3	.075/19.0	.072/13.4	.137/10.1	.149/10.1	.164/10.1	.140/9.8	.101/9.5	.065/10.1	.032/10.1	.000/8.0
	15	.000/27.3	.027/26.2	.054/23.3	.076/19.0	.076/13.4	.136/10.1	.133/10.5	.151/11.2	.137/11.6	.105/11.6	.072/12.6	.038/12.6	.000/8.0
	17	.000/27.3	.026/26.2	.051/23.3	.071/19.0	.077/13.4	.136/10.1	.136/10.1	.151/11.2	.126/12.1	.101/12.8	.067/14.3	.037/14.3	.000/8.0
25	7	.000/27.3	.025/26.2	.049/23.3	.068/19.0	.075/13.4	.136/10.1	.136/10.1	.151/11.2	.126/12.1	.101/12.8	.067/14.3	.037/14.3	.000/8.0
	9	.000/27.3	.024/26.2	.046/23.3	.064/19.0	.072/13.4	.136/10.1	.136/10.1	.151/11.2	.126/12.1	.101/12.8	.067/14.3	.037/14.3	.000/8.0
	11	.000/27.3	.024/26.2	.046/23.3	.064/19.0	.072/13.4	.136/10.1	.136/10.1	.151/11.2	.126/12.1	.101/12.8	.067/14.3	.037/14.3	.000/8.0
	13	.000/27.3	.024/26.2	.046/23.3	.064/19.0	.072/13.4	.136/10.1	.136/10.1	.151/11.2	.126/12.1	.101/12.8	.067/14.3	.037/14.3	.000/8.0
	15	.000/27.3	.024/26.2	.046/23.3	.064/19.0	.072/13.4	.136/10.1	.136/10.1	.151/11.2	.126/12.1	.101/12.8	.067/14.3	.037/14.3	.000/8.0
	17	.000/27.3	.024/26.2	.046/23.3	.064/19.0	.072/13.4	.136/10.1	.136/10.1	.151/11.2	.126/12.1	.101/12.8	.067/14.3	.037/14.3	.000/8.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DD 963

UNEXPECTED
RMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF

(ACC. X 100)
HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES										MODAL PERIOD IN SECONDS				
		0	15	30	45	60	75	90	105	120	135	150	165	180		
5	7	.000/11.2	.049/ 9.5	.095/ 8.7	.130/10.1	.223/ 8.7	.421/ 7.3	.497/ 6.5	.560/ 6.3	.336/ 6.7	.172/ 7.3	.090/ 7.5	.041/ 5.70.000/0000			
	9	.000/11.2	.064/11.2	.117/11.2	.191/10.8	.299/ 9.8	.436/ 8.5	.453/ 8.5	.539/ 7.3	.418/ 7.7	.266/ 8.3	.154/ 8.7	.073/ 9.00.000/0000			
	11	.000/11.2	.054/11.2	.112/11.2	.186/10.8	.289/10.5	.376/ 9.8	.384/10.1	.475/10.1	.412/ 9.8	.295/10.1	.184/10.1	.096/10.80.000/0000			
	13	.000/11.2	.050/11.2	.096/11.2	.150/10.8	.236/10.5	.306/10.1	.308/10.5	.398/10.8	.306/10.5	.274/10.5	.184/10.5	.098/11.20.000/0000			
	15	.000/11.2	.042/11.2	.082/11.2	.134/10.8	.195/10.5	.249/10.5	.253/10.5	.328/10.8	.256/10.5	.231/10.5	.163/11.2	.088/11.20.000/0000			
	17	.000/11.2	.036/11.2	.070/11.2	.114/10.8	.163/10.5	.206/10.5	.218/10.5	.271/10.8	.206/10.5	.201/10.5	.140/11.2	.076/11.20.000/0000			
	19	.000/11.2	.031/11.2	.061/11.2	.098/10.8	.138/10.5	.173/10.5	.184/10.5	.227/10.8	.173/10.5	.171/10.5	.119/11.2	.065/11.20.000/0000			
	21	.000/11.2	.028/11.2	.054/11.2	.085/10.8	.118/10.5	.147/10.5	.157/10.5	.192/10.8	.143/10.5	.146/10.5	.102/11.2	.056/11.20.000/0000			
10	7	.000/13.4	.032/12.8	.135/11.6	.163/10.1	.216/ 9.8	.404/ 7.9	.488/ 6.5	.563/ 6.3	.339/ 6.7	.172/ 7.3	.089/ 7.5	.040/ 5.70.000/0000			
	9	.000/13.4	.035/12.8	.121/11.6	.154/10.1	.253/10.5	.403/ 8.7	.441/ 8.3	.533/ 7.0	.412/ 7.7	.261/ 8.1	.150/ 8.5	.070/ 8.70.000/0000			
	11	.000/13.4	.033/13.1	.097/11.6	.127/10.1	.222/10.5	.338/ 9.5	.374/ 9.8	.463/ 9.5	.399/ 8.7	.285/ 9.2	.181/ 9.2	.091/10.10.000/0000			
	13	.000/13.4	.030/13.1	.080/11.6	.106/11.6	.184/10.5	.273/ 9.8	.308/10.5	.386/10.8	.352/10.5	.268/10.5	.181/11.2	.086/11.20.000/0000			
	15	.000/13.4	.028/13.1	.068/11.6	.092/11.6	.153/10.8	.222/10.1	.253/10.5	.318/10.8	.298/10.8	.236/11.2	.165/11.2	.090/11.20.000/0000			
	17	.000/13.4	.026/13.1	.060/11.6	.081/11.6	.130/10.8	.184/10.1	.210/10.5	.284/10.8	.251/11.6	.202/11.2	.144/11.2	.080/12.60.000/0000			
	19	.000/14.8	.024/14.8	.053/11.6	.072/11.6	.112/10.8	.155/10.1	.177/10.5	.221/10.8	.212/11.6	.173/11.6	.124/11.2	.069/12.60.000/0000			
	21	.000/14.8	.021/14.8	.047/11.6	.065/11.6	.098/10.8	.133/10.1	.152/10.5	.187/10.8	.180/11.6	.148/11.6	.107/11.2	.060/12.60.000/0000			
15	7	.000/20.3	.010/19.6	.026/17.5	.071/14.3	.183/10.8	.376/ 8.3	.477/ 6.5	.563/ 6.3	.338/ 6.7	.170/ 7.3	.087/ 7.5	.039/ 7.70.000/0000			
	9	.000/20.3	.019/19.6	.043/17.5	.078/14.3	.179/11.2	.359/ 9.0	.426/ 7.9	.527/ 7.5	.406/ 7.7	.258/ 8.3	.150/ 8.5	.070/ 8.70.000/0000			
	11	.000/20.3	.024/19.6	.050/17.5	.078/14.3	.152/11.2	.246/ 9.5	.359/ 9.5	.453/ 8.5	.388/ 8.3	.280/ 9.0	.180/ 9.2	.090/ 9.20.000/0000			
	13	.000/20.3	.025/19.6	.031/17.5	.076/14.3	.129/11.2	.238/ 9.8	.354/10.1	.437/10.1	.382/ 9.8	.264/10.1	.180/10.1	.095/11.20.000/0000			
	15	.000/20.3	.026/19.6	.050/17.5	.073/14.3	.113/11.2	.238/ 9.8	.343/10.5	.429/10.8	.342/10.8	.234/11.2	.165/11.6	.090/12.60.000/0000			
	17	.000/20.3	.021/19.6	.046/17.5	.066/14.3	.100/11.2	.234/10.5	.343/10.5	.429/10.8	.342/10.8	.234/11.2	.165/11.6	.090/12.60.000/0000			
	19	.000/20.3	.021/19.6	.043/17.5	.062/14.3	.089/11.6	.234/10.5	.343/10.5	.429/10.8	.342/10.8	.234/11.2	.165/11.6	.090/12.60.000/0000			
	21	.000/20.3	.018/19.6	.039/20.3	.057/20.3	.080/14.0	.234/10.5	.343/10.5	.429/10.8	.342/10.8	.234/11.2	.165/11.6	.090/12.60.000/0000			
20	7	.000/ 7.1	.023/ 7.0	.025/24.2	.064/14.0	.101/13.4	.359/ 9.0	.473/ 6.5	.567/ 6.3	.344/ 6.7	.172/ 7.3	.086/ 7.5	.039/ 7.70.000/0000			
	9	.000/27.3	.020/26.2	.036/23.3	.064/14.0	.096/13.4	.331/ 9.2	.423/ 7.9	.531/ 7.5	.413/ 7.9	.263/ 8.3	.153/ 8.5	.071/ 8.70.000/0000			
	11	.000/27.3	.020/26.2	.043/23.3	.076/14.0	.093/13.4	.268/ 9.5	.356/ 9.2	.456/ 8.3	.395/ 8.5	.284/ 9.0	.183/ 9.2	.091/ 9.20.000/0000			
	13	.000/27.3	.021/26.2	.045/23.3	.075/14.0	.088/13.4	.216/ 9.8	.293/10.1	.381/10.1	.349/ 9.2	.269/ 9.5	.183/10.1	.095/10.10.000/0000			
	15	.000/27.3	.021/26.2	.044/23.3	.072/14.0	.088/13.4	.178/ 9.8	.241/10.5	.316/10.8	.299/11.5	.239/11.2	.169/11.2	.090/12.60.000/0000			
	17	.000/27.3	.020/26.2	.041/23.3	.066/14.0	.083/13.4	.150/ 9.8	.201/10.5	.263/11.2	.284/11.5	.208/12.8	.149/12.8	.081/14.00.000/0000			
	19	.000/27.3	.018/26.2	.038/23.3	.061/14.0	.076/13.6	.129/10.1	.170/10.5	.221/12.1	.216/11.6	.179/12.8	.130/12.8	.071/14.30.000/0000			
	21	.000/27.3	.017/26.2	.035/23.3	.055/14.0	.070/14.6	.112/10.1	.146/10.5	.189/12.1	.195/12.1	.154/12.8	.113/12.8	.062/14.30.000/0000			
25	7	.000/ 7.9	.020/ 7.5	.044/ 6.8	.040/20.2	.075/16.5	.326/ 9.5	.468/ 6.5	.567/ 6.3	.343/ 6.7	.172/ 7.3	.088/ 7.5	.039/ 7.70.000/0000			
	9	.000/ 7.9	.015/33.3	.036/31.4	.058/24.2	.091/16.5	.291/ 9.8	.418/ 7.9	.531/ 7.5	.414/ 7.7	.267/ 8.3	.156/ 8.5	.072/ 8.70.000/0000			
	11	.000/ 7.9	.016/33.3	.038/29.9	.065/24.2	.096/16.5	.233/10.1	.352/ 9.2	.456/ 8.1	.396/ 8.7	.288/ 9.2	.187/ 9.2	.092/ 9.80.000/0000			
	13	.000/34.9	.017/33.1	.039/29.9	.064/24.2	.095/16.5	.184/10.1	.290/10.5	.382/10.1	.331/ 9.0	.273/ 9.5	.188/10.1	.097/10.10.000/0000			
	15	.000/34.9	.018/33.1	.037/29.9	.064/24.2	.091/16.5	.158/10.1	.239/10.5	.317/11.2	.302/10.8	.244/10.5	.174/11.2	.092/11.20.000/0000			
	17	.000/34.9	.018/33.1	.037/29.9	.064/24.2	.084/16.5	.135/10.1	.200/10.5	.265/12.1	.257/11.6	.212/12.8	.155/12.8	.084/14.30.000/0000			
	19	.000/34.9	.017/33.1	.035/29.9	.056/24.2	.077/16.5	.117/10.1	.169/10.5	.223/12.1	.219/13.1	.184/12.8	.136/14.3	.074/14.30.000/0000			
	21	.000/34.9	.016/33.1	.033/29.9	.051/24.2	.070/20.9	.103/18.5	.145/10.5	.190/12.1	.188/13.1	.159/12.8	.118/14.3	.065/14.30.000/0000			

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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LUNGCRESTED
PMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T IN SECONDS
OE
HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												180
		0	15	30	45	60	75	90	105	120	135	150	165	
5	7	.039/9.5	.041/9.2	.047/10.5	.062/9.8	.046/9.0	.162/7.9	.224/7.0	.169/7.0	.091/7.7	.064/7.7	.054/5.7	.049/5.7	.047/5.7
	9	.076/12.6	.079/12.6	.091/12.1	.113/11.6	.150/10.8	.203/9.5	.253/9.0	.208/8.7	.149/9.0	.115/9.0	.097/9.2	.087/9.0	.084/9.0
	11	.121/14.3	.125/14.3	.137/14.0	.158/12.8	.189/12.1	.225/11.6	.253/11.2	.208/10.8	.168/10.8	.159/10.5	.141/11.2	.130/11.2	.127/10.8
	13	.151/15.7	.161/15.7	.171/15.3	.188/15.0	.211/13.7	.247/13.1	.253/12.6	.238/12.6	.211/13.1	.190/12.8	.174/12.6	.165/12.6	.162/12.6
	15	.184/17.5	.187/17.5	.196/17.0	.209/17.0	.226/15.5	.247/16.1	.253/15.7	.245/15.0	.226/15.0	.210/14.6	.198/14.3	.171/14.3	.188/14.3
	17	.202/19.6	.204/19.6	.211/19.0	.221/19.0	.234/18.5	.247/18.0	.254/18.0	.247/17.5	.234/17.5	.222/16.5	.213/16.5	.207/16.5	.205/16.5
10	7	.032/13.4	.034/12.8	.039/11.6	.053/11.6	.084/10.1	.147/8.3	.218/7.0	.175/6.5	.093/7.1	.054/7.9	.045/5.7	.043/5.7	.042/5.3
	9	.067/15.3	.071/15.0	.082/14.3	.103/13.1	.134/11.6	.190/10.1	.234/9.0	.211/8.7	.148/9.0	.105/9.2	.085/9.2	.076/9.2	.074/9.2
	11	.111/17.0	.114/16.5	.126/15.3	.147/14.3	.177/13.4	.243/12.1	.243/11.2	.227/10.8	.184/10.8	.150/10.5	.130/11.2	.119/11.2	.116/11.2
	13	.147/19.6	.150/18.0	.161/17.5	.178/16.5	.202/15.6	.228/13.7	.248/12.6	.236/12.6	.207/13.1	.182/12.8	.165/12.6	.155/12.6	.152/12.6
	15	.174/21.7	.177/19.6	.186/19.0	.200/18.5	.217/17.5	.236/16.5	.249/15.7	.242/15.3	.222/15.0	.203/14.6	.190/14.3	.182/14.3	.180/14.3
	17	.193/21.7	.195/21.7	.202/20.9	.213/20.3	.226/19.6	.242/18.5	.249/18.0	.244/17.5	.230/17.0	.217/16.5	.206/16.5	.200/16.5	.198/16.5
15	7	.021/20.3	.023/19.6	.034/17.5	.047/14.3	.076/11.6	.136/9.0	.213/7.0	.181/6.5	.106/7.1	.059/7.3	.041/7.5	.035/6.3	.034/6.3
	9	.060/20.3	.063/19.6	.074/17.5	.095/15.3	.124/13.1	.179/10.8	.234/8.7	.218/8.5	.160/9.0	.112/9.0	.084/9.2	.071/9.2	.067/9.2
	11	.102/20.3	.106/19.6	.117/18.0	.138/16.5	.164/14.6	.205/12.8	.241/11.2	.231/10.6	.190/10.5	.153/10.5	.128/11.2	.114/11.2	.110/11.2
	13	.138/20.3	.141/20.3	.151/19.0	.169/17.5	.193/15.7	.250/14.0	.243/12.5	.237/13.4	.209/13.1	.182/12.8	.161/12.6	.150/12.6	.146/12.6
	15	.165/21.7	.168/21.7	.177/20.9	.191/19.6	.209/18.5	.234/17.0	.245/15.7	.241/15.3	.222/15.0	.202/14.6	.186/14.3	.177/14.3	.174/14.3
	17	.185/23.3	.187/23.3	.194/21.7	.205/20.3	.219/19.0	.234/19.0	.245/18.0	.242/17.5	.229/17.0	.214/16.5	.202/16.5	.195/16.5	.193/16.5
20	7	.028/31.4	.028/28.6	.032/23.3	.042/19.0	.070/13.4	.127/9.5	.210/7.0	.186/6.7	.116/7.1	.059/7.7	.046/7.9	.036/7.9	.034/7.9
	9	.057/27.3	.059/26.2	.064/23.3	.077/19.0	.121/15.5	.155/12.1	.231/11.6	.225/8.3	.176/7.7	.131/8.1	.101/8.3	.085/8.5	.080/8.5
	11	.096/27.3	.099/26.2	.104/23.3	.124/19.0	.160/15.1	.199/13.4	.237/11.2	.236/10.8	.203/10.5	.167/10.5	.141/11.2	.126/11.2	.121/10.8
	13	.131/27.3	.133/26.2	.143/23.3	.159/19.0	.185/17.0	.214/14.6	.240/12.6	.239/13.4	.216/13.1	.190/12.8	.170/12.6	.157/12.6	.153/12.6
	15	.158/27.3	.161/26.2	.168/23.3	.182/20.9	.202/18.5	.223/17.5	.242/15.7	.241/15.3	.225/15.0	.206/14.6	.191/14.3	.181/14.3	.178/14.3
	17	.178/27.3	.180/26.2	.186/23.3	.197/22.4	.212/20.3	.228/18.0	.241/18.0	.241/17.5	.230/17.0	.216/16.5	.204/16.5	.197/16.5	.194/16.5
25	7	.027/33.4	.029/31.4	.031/23.3	.039/25.1	.064/15.5	.121/10.5	.207/7.0	.188/7.0	.121/7.7	.073/7.9	.048/8.1	.037/8.3	.034/8.3
	9	.055/41.9	.058/37.0	.064/29.9	.079/24.2	.113/15.5	.155/12.1	.229/7.5	.233/7.5	.192/7.9	.150/8.3	.120/8.5	.103/8.7	.098/8.7
	11	.092/33.9	.095/33.1	.103/29.9	.119/24.2	.151/15.5	.192/14.6	.235/11.2	.242/10.1	.217/10.5	.187/9.7	.164/9.0	.149/9.2	.144/9.2
	13	.125/34.9	.128/34.3	.136/29.9	.151/24.2	.176/18.5	.208/15.3	.237/12.6	.243/13.4	.226/13.1	.205/12.8	.187/12.6	.175/12.6	.171/12.6
	15	.153/34.9	.155/33.1	.162/29.9	.174/24.2	.194/20.3	.218/16.5	.239/15.7	.243/15.3	.232/15.0	.216/14.6	.202/14.3	.193/14.3	.190/14.3
	17	.172/34.9	.174/33.1	.180/29.9	.194/24.2	.205/21.7	.218/18.5	.239/18.0	.243/17.5	.234/17.0	.223/16.5	.212/16.5	.205/16.5	.203/16.5
30	19	.187/34.9	.189/33.1	.193/29.9	.201/26.2	.213/23.3	.227/20.3	.234/18.0	.241/17.5	.236/17.5	.227/17.0	.219/17.0	.214/17.0	.212/17.0
	21	.200/34.9	.201/33.1	.205/29.9	.211/26.2	.220/26.2	.231/23.3	.240/20.9	.242/20.3	.238/20.3	.232/19.6	.225/19.6	.221/19.6	.220/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 963

LONGGESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
0E
HELICOPTER DECK HULLSEVE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES														
		0	15	30	45	60	75	90	105	120	135	150	165	180		
5	7	.026/9.5	.027/9.2	.032/8.7	.044/8.8	.073/8.7	.139/7.5	.220/6.3	.163/6.3	.085/7.1	.064/7.5	.055/5.7	.050/5.7	.044/5.7		
	9	.041/12.6	.043/12.1	.051/11.6	.066/11.2	.096/10.1	.149/8.7	.204/7.9	.171/8.1	.114/8.3	.089/8.7	.076/8.7	.059/8.7	.047/9.0		
	11	.057/13.4	.059/13.4	.067/13.1	.082/12.6	.106/11.2	.143/10.8	.181/9.5	.161/9.2	.124/9.5	.104/10.1	.092/10.1	.085/10.1	.083/10.1		
	13	.067/14.6	.069/14.5	.076/14.3	.088/14.0	.106/13.4	.143/12.1	.159/11.6	.148/11.2	.124/11.6	.109/11.6	.100/11.2	.094/11.2	.092/11.2		
	15	.072/15.1	.074/15.7	.079/15.7	.089/15.3	.103/14.6	.123/14.3	.141/12.6	.134/13.4	.119/13.1	.108/12.6	.101/12.6	.097/12.6	.096/12.6		
	17	.073/17.5	.075/17.5	.079/17.5	.087/17.0	.103/16.1	.123/16.1	.126/15.7	.122/15.0	.112/15.0	.104/14.6	.099/14.3	.096/14.3	.095/14.3		
10	7	.014/13.4	.016/12.8	.020/11.6	.030/11.5	.054/9.8	.117/8.1	.213/6.3	.178/6.3	.094/6.7	.060/7.7	.054/5.7	.052/5.7	.051/5.7		
	9	.028/15.3	.030/15.0	.037/15.3	.051/12.6	.078/11.2	.124/9.5	.194/7.5	.184/7.5	.125/8.3	.088/8.7	.074/9.0	.068/9.0	.064/9.0		
	11	.042/16.1	.045/16.1	.052/15.3	.066/14.3	.089/12.6	.141/11.2	.176/9.5	.171/9.2	.133/9.5	.106/10.1	.093/10.1	.086/10.1	.085/10.1		
	13	.052/17.0	.055/17.0	.061/16.5	.073/15.3	.092/14.3	.121/12.6	.155/11.6	.139/13.4	.124/13.1	.112/12.8	.105/12.8	.101/12.6	.100/12.6		
	15	.058/18.5	.060/18.0	.066/17.5	.076/16.5	.091/15.7	.113/14.6	.138/12.6	.139/13.4	.124/13.1	.112/12.8	.105/12.8	.101/12.6	.100/12.6		
	17	.061/19.6	.062/19.6	.067/19.0	.075/18.5	.087/17.5	.104/16.5	.124/15.7	.126/15.0	.116/15.0	.103/14.6	.103/14.3	.101/14.3	.100/14.3		
15	7	.008/20.3	.009/19.6	.012/17.5	.020/14.3	.042/11.6	.099/8.7	.207/6.3	.191/6.5	.114/6.7	.068/7.3	.052/5.7	.047/5.7	.046/5.7		
	9	.019/20.3	.020/19.6	.026/17.5	.039/15.0	.064/12.6	.113/10.1	.195/7.5	.189/7.5	.148/7.1	.104/8.5	.080/9.0	.070/9.0	.068/9.0		
	11	.031/20.3	.033/19.6	.039/18.0	.053/16.1	.076/13.7	.115/11.6	.173/9.5	.162/9.2	.151/9.5	.120/10.1	.101/10.1	.091/10.1	.088/10.1		
	13	.040/20.3	.042/20.3	.048/19.0	.060/17.5	.080/15.3	.110/12.8	.152/11.6	.153/11.2	.144/10.8	.124/11.6	.110/11.2	.102/11.2	.100/11.2		
	15	.046/21.7	.048/20.9	.054/20.3	.064/18.5	.080/17.0	.104/15.3	.136/12.6	.145/13.4	.135/13.1	.122/12.8	.112/12.8	.107/12.6	.105/12.6		
	17	.050/22.4	.051/22.4	.056/21.7	.065/20.3	.074/19.6	.097/17.0	.121/15.7	.131/15.0	.124/15.0	.116/14.6	.110/14.3	.105/14.3	.103/14.3		
20	7	.005/24.9	.006/24.6	.008/23.3	.013/19.0	.032/13.4	.085/9.2	.203/6.3	.203/6.5	.132/7.1	.081/7.5	.058/7.7	.048/7.9	.046/7.9		
	9	.012/27.3	.013/26.2	.018/23.3	.028/19.0	.052/14.3	.101/10.8	.192/7.5	.215/7.0	.175/7.5	.133/7.7	.105/8.1	.090/8.3	.086/8.3		
	11	.022/27.3	.024/26.2	.029/23.3	.041/19.0	.064/15.3	.104/12.1	.170/9.2	.195/8.5	.175/7.7	.147/8.1	.126/8.5	.114/9.8	.110/9.8		
	13	.030/27.3	.032/26.2	.038/23.3	.049/19.0	.069/17.0	.101/13.4	.150/11.6	.173/10.8	.163/10.8	.146/11.2	.131/11.2	.122/11.2	.119/11.2		
	15	.036/27.3	.038/26.2	.043/23.3	.053/20.9	.071/19.0	.096/15.7	.133/12.6	.153/13.4	.149/13.1	.130/12.8	.129/12.8	.123/12.6	.121/12.6		
	17	.040/27.3	.041/26.2	.046/23.3	.055/22.4	.070/20.9	.091/17.5	.120/15.7	.136/15.0	.136/15.0	.130/14.6	.124/14.3	.117/14.3	.116/14.3		
25	7	.004/7.7	.004/6.7	.007/37.0	.009/24.2	.024/16.5	.047/10.1	.200/6.3	.211/6.7	.143/7.1	.090/7.7	.062/8.1	.050/8.1	.046/8.3		
	9	.009/39.3	.010/37.0	.012/29.9	.020/24.2	.041/16.5	.090/11.6	.189/7.5	.229/7.0	.170/7.5	.162/8.1	.133/8.5	.116/8.5	.111/8.7		
	11	.015/34.9	.016/33.1	.021/29.9	.031/24.2	.053/16.5	.095/12.8	.168/9.2	.208/7.5	.201/7.9	.160/8.3	.160/8.7	.148/8.7	.144/9.0		
	13	.022/34.9	.023/33.1	.029/29.9	.039/24.2	.059/19.6	.093/14.3	.148/11.6	.183/10.1	.184/8.1	.173/8.5	.162/8.7	.154/8.7	.151/9.0		
	15	.029/34.9	.030/33.1	.034/29.9	.044/24.2	.061/19.6	.090/16.1	.132/12.9	.161/13.4	.166/12.1	.161/12.8	.154/12.9	.149/12.6	.147/12.6		
	17	.032/34.9	.033/33.1	.038/29.9	.047/24.2	.062/20.9	.085/18.0	.118/15.7	.143/15.0	.147/15.0	.147/14.6	.144/14.3	.140/14.3	.140/14.3		
	19	.034/34.9	.036/33.1	.040/29.9	.048/24.2	.061/21.7	.080/18.5	.107/15.7	.127/15.3	.134/15.0	.135/16.5	.133/16.5	.131/16.5	.131/16.1		
	21	.036/34.9	.037/33.1	.041/29.9	.048/26.2	.059/23.3	.075/20.3	.098/18.0	.115/17.5	.122/17.0	.123/17.0	.123/16.5	.122/16.5	.122/16.5		
	NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.															

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 463

UNCRESTED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL
(ACC. X 100)

		SHIP HEADING ANGLE IN DEGREES														MODAL PERIOD IN SECONDS													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180															
5	9	0.56/9.2	0.60/9.0	0.73/8.5	1.04/9.2	1.82/8.3	3.95/7.1	7.15/5.7	5.17/5.7	2.69/7.0	2.14/5.2	1.86/5.7	1.69/5.7	1.65/5.7															
9	9	0.71/12.1	0.76/12.1	0.93/11.6	1.28/10.8	2.03/9.5	3.68/7.9	5.90/5.3	4.78/7.0	2.97/7.9	2.35/8.3	2.06/8.5	1.90/8.5	1.85/8.5															
11	13	0.81/13.4	0.91/13.1	1.07/12.8	1.39/11.6	1.99/10.8	3.16/9.0	4.65/7.0	4.02/7.9	2.84/8.7	2.35/9.0	2.09/9.2	1.94/9.2	1.90/9.2															
13	13	0.93/14.3	0.97/14.3	1.11/14.0	1.37/12.8	1.82/11.6	2.67/9.8	3.75/7.5	3.33/8.7	2.55/9.5	2.19/10.1	1.98/10.1	1.88/10.8	1.84/10.8															
15	15	0.93/15.7	0.97/15.7	1.07/15.7	1.24/14.0	1.63/13.4	2.25/11.6	3.05/9.0	2.78/9.8	2.23/10.8	1.98/11.2	1.83/11.2	1.75/11.2	1.72/11.2															
17	17	0.89/16.1	0.92/15.7	1.01/15.7	1.17/15.0	1.44/13.4	1.92/12.8	2.52/11.6	2.33/12.1	1.94/11.6	1.76/12.8	1.65/12.8	1.59/12.8	1.57/12.8															
19	19	0.83/17.5	0.85/17.5	0.92/17.5	1.06/15.3	1.27/13.0	1.64/13.1	2.12/12.8	1.98/12.6	1.69/13.1	1.56/12.8	1.48/12.8	1.43/12.8	1.42/12.8															
21	21	0.77/17.5	0.79/17.5	0.84/17.5	0.95/17.0	1.13/15.5	1.42/14.3	1.81/14.0	1.71/13.7	1.48/13.4	1.38/14.6	1.32/14.3	1.28/14.3	1.27/14.3															
10	7	0.21/13.4	0.23/12.8	0.31/11.6	0.53/11.6	1.14/9.5	3.04/7.7	6.88/6.3	5.91/6.3	3.17/6.5	2.30/5.2	2.14/5.7	2.04/5.7	2.01/5.7															
9	9	0.36/15.0	0.40/15.0	0.52/14.0	0.80/12.6	1.41/10.8	2.94/8.7	5.71/6.3	5.45/6.3	3.54/7.7	2.58/8.3	2.32/8.3	2.24/8.3	2.22/8.3															
11	11	0.51/16.1	0.55/15.7	0.68/15.0	0.94/13.4	1.47/12.1	2.59/9.9	4.55/7.0	4.33/6.5	3.33/8.7	2.62/9.2	2.35/9.8	2.25/9.8	2.23/9.8															
13	13	0.60/17.0	0.63/17.0	0.74/16.1	0.97/14.3	1.40/13.4	2.23/11.2	3.64/7.5	3.72/8.3	2.94/9.5	2.46/10.1	2.26/10.1	2.17/10.8	2.15/10.8															
15	15	0.62/18.0	0.65/18.0	0.75/17.5	0.94/15.3	1.29/14.3	1.92/12.1	2.97/9.0	3.07/9.5	2.55/10.5	2.23/11.2	2.09/11.2	2.02/11.2	2.00/11.2															
17	17	0.62/18.5	0.64/18.5	0.73/17.5	0.88/16.5	1.15/14.0	1.65/13.4	2.46/11.6	2.56/12.1	2.20/11.6	1.98/12.8	1.84/12.8	1.84/12.8	1.83/12.8															
19	19	0.59/19.6	0.61/19.6	0.68/19.0	0.81/17.0	1.03/15.7	1.43/14.8	2.07/12.6	2.17/12.6	1.91/13.1	1.75/12.8	1.68/12.8	1.65/12.8	1.64/12.8															
21	21	0.56/21.7	0.58/20.3	0.64/19.6	0.74/18.5	0.93/17.5	1.24/15.0	1.76/14.0	1.85/13.7	1.66/13.4	1.55/14.6	1.50/14.3	1.48/14.3	1.47/14.3															
15	7	0.07/20.3	0.08/19.6	0.13/17.5	0.27/14.3	0.72/11.2	2.33/8.3	6.65/6.3	6.59/6.3	4.00/6.7	2.65/6.8	2.24/6.7	2.11/6.7	2.07/6.7															
9	9	0.18/20.3	0.20/19.6	0.28/17.5	0.49/15.0	1.00/12.6	2.36/8.2	5.44/6.3	5.44/6.3	3.56/7.0	2.57/7.5	2.24/7.5	2.11/7.5	2.07/7.5															
11	11	0.29/20.3	0.32/19.6	0.42/17.5	0.63/15.7	1.10/13.4	2.15/10.8	4.44/7.0	4.44/7.0	3.11/7.5	2.30/8.3	2.08/8.3	2.00/8.3	1.97/8.3															
13	13	0.37/20.3	0.40/19.6	0.49/19.0	0.69/16.5	1.04/15.0	1.64/12.8	3.56/7.3	3.56/7.3	2.60/9.0	2.30/10.1	2.08/10.1	2.01/10.8	1.98/10.8															
15	15	0.41/20.9	0.43/20.3	0.52/19.6	0.69/17.5	1.01/15.7	1.64/12.8	2.90/9.0	3.41/6.5	3.07/9.8	2.69/10.5	2.46/11.2	2.34/11.2	2.31/11.2															
17	17	0.42/21.7	0.44/21.7	0.52/20.3	0.66/18.5	0.93/17.0	1.43/14.0	2.41/11.6	2.43/6.7	2.61/10.8	2.30/11.6	2.20/12.6	2.13/12.6	2.10/12.6															
19	19	0.42/23.3	0.44/22.6	0.50/21.7	0.62/20.3	0.85/17.0	1.25/15.3	2.02/12.6	2.08/12.1	2.24/13.1	2.07/12.8	1.96/12.8	1.91/12.8	1.89/12.8															
21	21	0.40/24.2	0.42/24.2	0.48/21.7	0.58/20.3	0.77/18.5	1.10/15.7	1.73/14.0	1.73/14.0	1.93/13.4	1.81/14.6	1.74/14.3	1.70/14.3	1.69/14.3															
20	7	0.14/6.8	0.11/27.3	0.09/23.3	0.13/19.0	0.46/13.4	1.62/9.0	6.48/6.3	7.16/6.5	4.82/7.0	3.18/7.3	2.47/7.5	2.19/7.5	2.12/7.5															
9	9	0.12/27.3	0.12/26.2	0.15/23.3	0.24/19.0	0.70/13.0	1.92/10.1	5.44/6.3	6.86/6.5	5.75/7.1	4.47/7.7	3.65/8.1	3.23/8.1	3.12/8.1															
11	11	0.17/27.3	0.18/26.2	0.25/23.3	0.41/19.0	0.81/13.0	1.80/11.6	4.35/7.0	5.70/6.7	5.24/7.1	4.46/7.7	3.86/8.1	3.53/8.3	3.43/8.3															
13	13	0.22/27.3	0.24/26.2	0.31/23.3	0.47/19.0	0.83/13.0	1.62/12.6	3.50/7.3	4.62/7.0	4.46/7.5	3.94/7.9	3.61/8.1	3.38/8.5	3.30/8.5															
15	15	0.26/27.3	0.28/26.2	0.36/23.3	0.50/19.0	0.80/13.0	1.42/13.4	2.85/8.5	3.77/7.0	3.74/7.7	3.66/7.9	3.22/11.2	3.07/11.2	3.02/11.2															
17	17	0.28/27.3	0.30/26.2	0.36/23.3	0.49/20.9	0.75/18.0	1.25/14.6	2.36/11.6	3.12/7.0	3.15/7.7	2.98/11.2	2.73/11.2	2.73/11.2	2.70/11.2															
19	19	0.29/27.3	0.31/26.2	0.36/23.3	0.47/22.4	0.69/18.5	1.09/15.7	1.99/12.6	2.61/7.0	2.67/7.7	2.74/12.6	2.61/12.6	2.59/12.6	2.59/12.6															
21	21	0.29/27.3	0.30/26.2	0.36/23.3	0.45/22.4	0.63/19.5	0.98/17.5	1.70/14.0	2.22/7.0	2.24/7.7	2.23/14.6	2.17/14.3	2.12/14.3	2.11/14.3															
25	7	0.32/6.8	0.38/6.7	0.18/6.3	0.10/24.2	0.27/15.5	1.43/9.8	6.34/6.3	7.62/6.5	5.41/7.1	3.61/7.7	2.68/7.9	2.30/8.1	2.21/8.1															
9	9	0.21/6.8	0.24/6.7	0.13/29.9	0.17/24.2	0.47/15.5	1.52/11.2	5.36/6.3	7.53/7.0	6.88/7.7	5.70/7.9	4.79/8.3	4.28/8.3	4.12/8.3															
11	11	0.16/34.9	0.18/33.1	0.16/29.9	0.26/24.2	0.54/15.5	1.34/13.1	4.27/7.0	6.29/7.0	6.34/7.7	5.17/8.3	4.90/8.5	4.92/8.7	4.80/8.7															
13	13	0.16/34.9	0.18/33.1	0.20/29.9	0.32/24.2	0.62/15.5	1.34/13.1	3.45/7.3	5.10/7.0	5.34/7.7	4.44/8.3	4.30/8.5	4.49/8.7	4.61/8.7															
15	15	0.17/34.9	0.19/33.1	0.23/29.9	0.35/24.2	0.62/15.5	1.10/14.0	2.81/8.3	4.15/7.0	4.44/7.7	3.78/8.3	3.72/8.7	3.65/8.7	3.63/8.7															
17	17	0.19/34.9	0.21/33.1	0.25/29.9	0.36/24.2	0.59/15.6	1.10/15.3	3.42/8.3	4.57/7.0	4.75/7.7	3.78/8.3	3.72/8.7	3.65/8.7	3.63/8.7															
19	19	0.20/34.9	0.22/33.1	0.25/29.9	0.36/24.2	0.56/15.6	0.98/16.5	1.96/12.6	2.86/7.0	3.16/7.7	3.21/8.7	3.21/8.7	3.17/8.7	3.16/8.7															
21	21	0.21/34.9	0.22/33.1	0.26/29.9	0.35/24.2	0.52/15.6	0.87/18.0	1.57/14.0	2.52/7.0	2.70/7.7	2.77/8.3	2.78/8.7	2.76/8.7	2.75/8.7															

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTED
RMS ROLL IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	126/10.8	130/10.8	141/10.8	152/10.5	160/10.5	162/9.8	156/9.5	143/9.0	125/8.3	103/7.9	83/7.9	66/7.7	50/7.9
	9	257/11.2	266/11.2	286/11.2	308/11.2	322/11.2	324/11.2	310/10.8	284/10.8	249/10.5	211/10.5	176/10.5	152/10.5	122/11.2
	11	300/11.6	310/11.6	337/11.6	366/11.6	388/11.6	396/11.6	389/11.2	366/11.2	332/11.2	294/11.2	257/11.2	231/11.2	201/11.2
	13	279/11.6	290/11.6	316/11.6	346/11.6	370/11.6	383/11.6	381/11.2	366/11.2	343/11.2	308/11.2	276/11.2	253/11.2	224/11.2
	15	241/11.6	251/11.6	274/11.6	301/11.6	324/11.6	337/11.6	339/11.6	329/11.2	309/11.2	284/11.2	258/11.2	239/11.2	211/11.2
	17	204/11.6	212/11.6	231/11.6	255/11.6	275/11.6	288/11.6	291/11.6	284/11.6	269/11.2	248/11.2	227/11.2	211/11.2	205/11.2
	19	171/11.6	178/11.6	195/11.6	215/11.6	233/11.6	244/11.6	248/11.6	243/11.6	230/11.6	213/11.2	196/11.2	183/11.2	174/11.2
	21	145/11.6	151/11.6	165/11.6	182/11.6	197/11.6	207/11.6	211/11.6	207/11.6	197/11.6	183/11.6	168/11.2	157/11.2	153/11.2
	10	7	256/11.6	257/11.6	258/11.6	257/11.6	250/11.6	233/11.6	203/11.6	166/10.1	128/10.1	95/8.1	68/7.9	51/7.7
9		288/11.6	295/11.6	313/11.6	330/11.6	337/11.6	326/11.6	302/11.6	262/11.6	214/10.8	167/10.8	124/10.5	103/10.1	85/10.1
11		273/11.6	283/11.6	309/11.6	335/11.6	351/11.6	352/11.6	336/11.6	301/11.6	265/11.2	222/11.2	185/11.2	160/11.6	132/11.6
13		237/11.6	248/11.6	273/11.6	300/11.6	320/11.6	327/11.6	321/11.6	301/11.6	272/11.6	240/11.6	210/11.6	190/12.1	163/12.1
15		199/11.6	209/11.6	231/11.6	257/11.6	276/11.6	286/11.6	285/11.6	273/11.6	253/12.1	229/12.1	206/12.6	190/12.6	164/12.6
17		167/11.6	175/11.6	194/11.6	216/12.1	234/12.1	244/12.1	246/12.1	234/12.1	224/12.1	205/12.1	187/12.6	175/12.6	164/12.6
19		140/12.1	147/12.1	163/12.1	182/12.1	198/12.1	208/12.1	210/12.1	205/12.1	194/12.1	179/12.6	165/12.6	155/12.6	151/12.6
21		118/12.1	124/12.1	138/12.1	154/12.1	168/12.1	177/12.1	180/12.1	176/12.1	168/12.1	156/12.6	144/12.6	135/12.6	132/12.6
15		7	158/14.3	168/14.3	189/14.3	209/14.3	219/14.3	215/14.3	198/10.1	170/10.1	133/10.1	99/10.1	69/8.3	40/7.7
	9	193/14.3	207/14.3	238/14.3	267/12.1	283/12.1	283/11.6	266/11.6	233/11.6	190/11.6	141/11.2	100/10.5	76/9.5	56/9.2
	11	191/14.3	205/14.3	237/12.1	268/12.1	288/12.1	292/12.1	280/12.1	253/12.1	216/11.6	174/11.6	137/11.6	114/11.6	96/11.6
	13	171/15.0	183/14.3	212/12.1	241/12.1	261/12.1	264/12.1	253/12.1	245/12.1	203/12.1	186/12.1	157/12.6	138/12.6	132/12.6
	15	147/17.5	157/15.0	182/12.5	207/12.1	226/12.1	235/12.1	234/12.1	223/12.1	203/12.6	180/12.6	158/12.6	143/12.8	138/12.8
	17	125/17.5	133/17.5	154/15.0	176/12.6	193/12.6	202/12.6	204/12.6	196/12.6	182/12.6	164/12.8	147/13.1	135/13.1	131/13.1
	19	106/17.5	113/17.5	130/15.0	149/12.6	164/12.6	173/12.6	175/12.6	171/12.6	160/12.8	146/13.1	132/13.1	123/13.4	119/13.4
	21	90/17.5	97/17.5	111/15.0	127/12.6	140/12.6	148/12.6	151/12.6	148/12.8	139/12.8	128/13.1	117/13.4	109/14.0	106/14.3
	20	7	143/13.4	157/13.4	187/13.4	214/13.4	228/13.4	227/13.4	212/13.4	184/13.4	145/13.4	100/13.4	69/9.5	43/7.7
9		170/13.4	188/13.4	226/13.4	254/13.4	278/13.4	280/13.4	265/13.4	234/13.4	190/13.4	139/13.4	92/10.5	64/9.5	47/9.2
11		168/13.7	185/13.7	221/13.7	254/13.7	275/13.7	280/13.7	269/13.7	243/13.7	205/13.4	160/11.6	119/11.6	94/11.6	86/11.6
13		151/19.0	165/19.0	196/13.7	226/13.7	247/13.7	255/13.7	249/13.7	231/13.7	202/13.4	168/12.1	136/12.6	115/12.8	104/13.1
15		131/19.0	142/19.0	168/13.7	194/13.7	213/13.7	223/13.7	221/13.7	204/13.7	169/13.4	163/13.4	139/13.4	123/14.3	117/14.3
17		112/19.0	121/19.0	143/19.0	165/13.7	182/13.7	192/13.7	193/13.7	185/13.7	170/13.7	151/13.7	132/14.3	119/14.3	115/14.3
19		95/19.0	103/19.0	121/19.0	140/13.7	155/13.7	164/13.7	166/13.7	162/13.7	150/13.7	137/13.7	121/14.3	110/14.3	107/14.3
21		82/23.3	88/19.0	103/19.0	120/13.7	133/13.7	141/13.7	144/13.7	140/13.7	132/13.7	120/14.3	108/14.3	100/14.3	97/14.3
25		7	125/16.5	143/16.5	177/16.5	205/16.5	222/16.5	225/16.5	214/16.5	189/16.5	152/16.5	108/16.5	62/10.1	30/7.7
	9	152/16.5	172/16.5	212/16.5	246/16.5	267/16.5	271/16.5	259/16.5	231/16.5	188/16.5	137/16.5	87/10.8	54/9.5	47/9.2
	11	152/16.5	169/16.5	206/16.5	239/16.5	260/16.5	266/16.5	256/16.5	231/16.5	194/16.5	150/11.6	107/11.6	79/11.6	71/11.6
	13	138/16.5	152/16.5	183/16.5	213/16.5	233/16.5	240/16.5	234/16.5	216/16.5	188/16.5	153/12.1	120/12.6	98/13.1	91/13.1
	15	120/16.5	132/16.5	158/16.5	183/16.5	201/16.5	210/16.5	208/16.5	196/16.5	175/16.5	149/13.1	124/13.7	108/14.3	102/14.3
	17	104/16.5	113/16.5	134/16.5	156/16.5	172/16.5	181/16.5	181/16.5	174/16.5	159/16.5	139/13.7	121/14.3	108/14.3	106/14.3
	19	88/16.5	97/16.5	114/16.5	133/16.5	147/16.5	156/16.5	157/16.5	152/16.5	141/16.5	137/14.3	122/14.6	103/14.6	99/14.6
	21	77/16.5	83/16.5	98/16.5	114/16.5	126/16.5	134/16.5	137/16.5	133/16.5	125/16.5	113/14.6	102/14.6	94/14.6	91/14.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DD 963														
SHORTCUTTED														
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OF														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.028/9.0	.030/9.0	.035/9.0	.040/9.1	.046/7.3	.051/6.5	.053/6.7	.054/6.7	.052/6.8	.048/7.0	.044/7.1	.040/7.3	.034/7.3
9	9	.046/11.6	.047/11.6	.048/11.6	.051/11.6	.054/11.2	.058/11.2	.061/8.1	.064/8.1	.065/8.1	.065/8.3	.064/8.3	.064/8.3	.063/8.3
11	11	.057/12.8	.057/12.8	.057/12.8	.056/12.6	.056/12.1	.058/11.6	.060/9.8	.064/9.2	.067/9.0	.070/9.2	.073/9.2	.074/9.2	.075/9.2
13	13	.061/13.7	.060/13.7	.059/13.4	.056/13.4	.054/13.1	.054/13.1	.056/11.6	.059/10.5	.054/10.1	.068/10.1	.072/10.1	.075/10.1	.076/10.1
15	15	.060/14.6	.059/14.6	.056/14.3	.053/14.3	.050/14.3	.049/13.4	.050/12.6	.053/11.6	.058/11.2	.063/11.2	.068/11.2	.071/11.2	.072/11.2
17	17	.056/15.7	.055/15.7	.053/15.7	.049/15.7	.045/15.3	.044/15.3	.044/13.4	.047/12.8	.052/12.6	.058/12.6	.062/12.6	.065/12.6	.066/12.6
19	19	.052/17.0	.051/17.0	.048/16.5	.045/16.1	.041/15.7	.039/15.3	.039/14.6	.042/14.0	.047/13.1	.052/13.1	.056/14.0	.059/14.0	.060/14.0
21	21	.047/17.5	.046/17.5	.044/17.5	.040/17.5	.037/17.0	.035/16.5	.035/15.3	.037/14.6	.042/14.3	.046/14.3	.051/14.3	.053/14.3	.054/14.3
10	7	.024/12.8	.025/12.8	.030/12.8	.035/12.8	.041/7.0	.045/7.0	.048/7.0	.049/7.0	.048/7.1	.045/7.1	.041/7.3	.038/7.3	.036/7.3
9	9	.041/14.6	.041/14.6	.043/14.6	.045/14.3	.049/12.8	.054/7.7	.058/7.9	.061/8.1	.061/8.3	.065/8.3	.065/8.3	.065/8.3	.065/8.3
11	11	.052/15.3	.052/15.3	.051/15.3	.051/15.0	.052/14.6	.054/14.3	.058/9.5	.062/9.2	.067/9.0	.071/9.2	.075/9.2	.077/9.2	.078/9.2
13	13	.055/16.1	.055/16.1	.053/16.1	.051/15.7	.050/15.3	.051/15.0	.054/12.8	.058/10.1	.064/10.1	.070/10.1	.074/10.1	.077/10.1	.078/10.1
15	15	.055/17.0	.054/17.0	.052/17.0	.049/16.5	.047/16.1	.046/16.1	.047/15.0	.053/12.1	.059/11.2	.065/11.2	.070/11.2	.073/11.2	.074/11.2
17	17	.051/17.5	.051/17.5	.048/17.5	.045/17.5	.042/17.0	.041/16.5	.043/15.0	.047/13.1	.053/12.5	.059/12.5	.063/12.5	.067/12.5	.068/12.5
19	19	.047/18.5	.047/18.5	.044/18.5	.041/18.0	.038/18.0	.037/17.0	.038/15.7	.042/14.3	.047/14.0	.053/14.3	.058/14.3	.061/14.3	.062/14.3
21	21	.043/19.6	.043/19.6	.040/19.6	.037/19.0	.034/18.5	.033/18.0	.034/16.5	.037/15.0	.042/14.5	.047/14.3	.051/14.3	.054/14.3	.055/14.3
15	7	.020/14.3	.022/14.3	.026/14.3	.031/14.3	.036/14.3	.040/7.5	.043/7.3	.044/7.3	.043/7.3	.040/7.3	.037/7.5	.034/7.5	.033/7.7
9	9	.036/17.5	.037/17.5	.038/17.5	.041/17.5	.045/17.5	.049/17.5	.054/8.1	.058/8.1	.061/8.3	.062/8.3	.063/8.3	.064/8.3	.064/8.3
11	11	.047/20.3	.047/20.3	.046/19.5	.046/19.6	.048/17.5	.051/17.5	.055/9.0	.060/9.0	.066/9.0	.071/9.2	.074/9.2	.077/9.2	.078/9.2
13	13	.050/20.3	.050/20.3	.049/20.3	.047/20.3	.046/20.3	.044/17.5	.052/17.5	.057/10.1	.064/10.1	.070/10.1	.075/10.1	.078/10.1	.079/10.1
15	15	.050/20.3	.049/20.3	.047/20.3	.045/20.3	.043/20.3	.041/19.6	.047/17.5	.052/11.6	.058/11.2	.065/11.2	.070/11.2	.074/11.2	.075/11.2
17	17	.047/20.3	.046/20.3	.044/20.3	.042/20.3	.039/20.3	.039/20.3	.041/17.5	.046/12.8	.053/12.5	.059/12.5	.064/12.5	.067/12.5	.069/12.5
19	19	.044/20.3	.043/20.3	.041/20.3	.039/20.3	.036/20.3	.035/20.3	.037/17.5	.041/15.0	.047/14.3	.053/14.3	.058/14.3	.061/14.3	.062/14.3
21	21	.040/20.3	.039/20.3	.037/20.3	.034/20.3	.032/20.3	.031/20.3	.033/19.6	.037/16.1	.042/14.5	.047/14.3	.052/14.3	.055/14.3	.056/14.3
20	7	.019/13.4	.020/13.4	.024/13.4	.028/13.4	.033/13.4	.036/13.4	.038/13.4	.039/7.9	.037/7.7	.035/7.7	.032/7.7	.029/7.7	.028/7.7
9	9	.033/23.3	.034/23.3	.035/19.0	.038/19.0	.041/19.0	.045/19.0	.050/19.0	.054/8.3	.056/8.5	.058/8.5	.059/8.5	.060/8.5	.060/8.7
11	11	.043/23.3	.042/23.3	.042/23.3	.042/23.3	.044/19.0	.047/19.0	.052/19.0	.058/9.2	.063/9.2	.068/9.2	.072/9.2	.075/9.2	.075/9.2
13	13	.046/26.2	.046/26.2	.044/26.2	.043/23.3	.043/23.3	.045/23.3	.049/19.0	.055/10.1	.062/10.1	.068/10.1	.073/10.1	.077/10.1	.078/10.1
15	15	.046/26.2	.045/26.2	.043/26.2	.041/26.2	.040/23.3	.041/23.3	.045/19.0	.051/11.2	.057/11.2	.063/11.2	.069/11.2	.073/11.2	.074/11.2
17	17	.043/26.2	.042/26.2	.041/26.2	.038/26.2	.037/23.3	.037/23.3	.040/23.3	.045/13.4	.052/13.4	.058/12.6	.063/12.6	.067/12.6	.068/12.6
19	19	.040/26.2	.039/26.2	.037/26.2	.035/26.2	.033/26.2	.033/23.3	.035/23.3	.040/14.6	.046/14.3	.052/14.3	.057/14.3	.061/14.3	.062/14.3
21	21	.037/26.2	.036/26.2	.034/26.2	.032/26.2	.030/26.2	.029/23.3	.032/23.3	.036/19.0	.041/14.6	.047/14.3	.052/14.3	.055/14.3	.056/14.3
25	7	.018/16.5	.019/16.5	.022/16.5	.026/16.5	.030/16.5	.033/16.5	.034/16.5	.034/16.5	.033/7.7	.030/7.7	.027/7.7	.025/7.7	.024/7.9
9	9	.031/16.5	.032/16.5	.033/16.5	.035/16.5	.038/16.5	.042/16.5	.046/16.5	.049/16.5	.052/8.7	.053/8.7	.054/8.7	.054/8.7	.054/9.0
11	11	.040/34.9	.039/34.9	.039/16.5	.039/16.5	.041/16.5	.042/16.5	.047/16.5	.053/16.5	.060/10.1	.066/10.1	.071/10.1	.074/10.1	.075/10.1
13	13	.042/33.1	.042/33.1	.040/33.1	.038/33.1	.037/24.2	.036/16.5	.047/16.5	.053/16.5	.060/10.1	.066/10.1	.071/10.1	.074/10.1	.075/10.1
15	15	.042/33.1	.041/33.1	.040/33.1	.038/33.1	.037/24.2	.036/16.5	.047/16.5	.053/16.5	.060/10.1	.066/10.1	.071/10.1	.074/10.1	.075/10.1
17	17	.040/33.1	.039/33.1	.037/33.1	.035/33.1	.034/33.1	.033/24.2	.038/16.5	.044/16.5	.050/12.5	.057/12.5	.062/12.5	.065/12.5	.066/12.5
19	19	.037/33.1	.036/33.1	.034/33.1	.032/33.1	.031/33.1	.031/24.2	.037/16.5	.043/16.5	.049/16.5	.054/16.5	.059/16.5	.064/16.5	.065/16.5
21	21	.033/33.1	.033/33.1	.031/33.1	.029/33.1	.028/33.1	.028/24.2	.031/24.2	.035/16.5	.041/16.5	.046/16.5	.051/16.5	.056/16.5	.057/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DD 463														
SHORTCRESTED														
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OE														
CENTER OF GRAVITY - 258.7 FT FORWARD OF AP AND 21.9 FT FROM RL														
V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.022/ 9.5	.030/ 9.2	.044/ 8.5	.058/ 8.3	.068/ 8.1	.075/ 7.9	.077/ 7.9	.074/ 7.9	.067/ 7.9	.055/ 7.9	.041/ 7.9	.026/ 7.9	.018/ 7.9
	9	.048/11.6	.055/11.6	.072/11.2	.090/10.8	.104/10.8	.112/10.1	.114/10.1	.109/ 9.8	.098/ 9.5	.082/ 9.5	.063/ 9.2	.044/ 9.2	.036/ 9.5
	11	.073/13.4	.081/13.1	.099/12.8	.119/12.6	.135/12.1	.145/12.1	.146/12.1	.140/12.1	.126/12.1	.106/11.6	.084/11.6	.064/11.6	.055/11.6
	13	.092/15.0	.101/15.0	.120/14.9	.142/14.3	.160/14.0	.170/14.0	.172/14.0	.155/13.7	.139/13.4	.128/13.4	.103/13.1	.082/13.1	.073/13.1
	15	.107/17.0	.115/16.5	.136/16.5	.159/16.1	.178/16.1	.189/16.1	.192/15.7	.184/15.3	.168/15.3	.145/15.0	.119/15.0	.098/15.0	.088/14.6
	17	.116/19.0	.125/18.5	.146/18.5	.169/18.0	.187/18.0	.201/17.5	.204/17.5	.196/17.0	.180/17.0	.156/17.0	.130/17.0	.108/17.0	.099/16.5
	19	.121/19.6	.130/19.6	.151/19.0	.175/19.0	.196/19.0	.208/19.0	.211/18.5	.204/18.5	.187/18.5	.164/18.0	.138/18.0	.116/18.0	.106/19.0
10	7	.025/21.7	.034/21.7	.055/21.7	.079/20.9	.104/20.9	.128/20.9	.152/20.9	.176/20.9	.200/20.3	.224/20.3	.248/20.3	.272/20.3	.296/20.3
	9	.056/13.4	.063/13.1	.080/12.1	.101/11.6	.122/11.2	.143/11.2	.164/11.2	.185/11.2	.206/11.2	.227/11.2	.248/11.2	.269/11.2	.290/11.2
	11	.082/15.3	.090/14.6	.108/14.3	.128/13.4	.142/13.4	.150/12.6	.150/12.6	.141/12.1	.125/12.1	.104/12.1	.080/11.6	.060/11.6	.051/11.6
	13	.102/16.5	.110/16.5	.129/15.7	.150/15.7	.167/15.0	.175/14.6	.175/14.3	.165/14.0	.147/13.7	.124/13.7	.098/13.4	.076/13.4	.067/13.4
	15	.116/18.0	.125/18.0	.145/17.5	.167/17.0	.184/16.5	.194/16.5	.194/15.7	.184/15.7	.165/15.3	.140/15.3	.114/15.0	.091/15.0	.082/15.0
	17	.125/19.6	.133/19.6	.154/19.0	.177/18.5	.195/18.0	.205/17.5	.205/17.5	.195/17.5	.177/17.5	.152/17.0	.125/17.0	.102/17.0	.092/17.0
	19	.130/20.9	.138/20.9	.159/20.9	.182/20.3	.201/20.3	.212/19.6	.212/19.6	.203/19.0	.184/19.0	.159/19.0	.132/19.0	.109/19.6	.100/19.6
15	7	.059/89.8	.062/89.8	.069/14.3	.077/14.3	.083/ 9.0	.086/ 8.7	.084/ 8.5	.078/ 8.5	.068/ 8.3	.054/ 8.1	.039/ 7.9	.024/ 7.9	.015/ 7.9
	9	.074/17.5	.081/17.5	.095/17.5	.109/17.5	.120/17.5	.125/17.5	.125/17.5	.114/17.5	.099/17.5	.080/ 9.8	.059/ 9.5	.040/ 9.5	.031/ 9.5
	11	.098/19.6	.105/19.6	.122/19.6	.139/19.6	.153/19.6	.155/19.6	.155/19.6	.144/19.6	.126/19.6	.102/19.6	.078/19.6	.056/19.6	.047/19.6
	13	.116/19.6	.124/19.6	.142/19.6	.162/19.6	.176/19.6	.182/19.6	.182/19.6	.167/19.6	.143/19.6	.121/19.6	.094/19.6	.071/19.6	.062/19.6
	15	.129/20.3	.137/20.3	.156/20.3	.177/20.3	.193/20.3	.200/20.3	.200/20.3	.184/20.3	.157/20.3	.137/20.3	.109/20.3	.085/20.3	.076/20.3
	17	.137/20.9	.145/20.9	.164/20.9	.184/20.9	.202/20.9	.210/20.9	.210/20.9	.195/20.9	.171/20.9	.147/20.9	.119/20.9	.096/20.9	.086/20.9
	19	.141/22.4	.149/22.4	.168/21.7	.187/21.7	.204/20.9	.216/20.9	.216/20.9	.202/20.3	.181/20.3	.155/20.3	.127/20.3	.104/20.3	.094/20.3
20	7	.143/24.2	.151/23.3	.171/23.3	.193/23.3	.211/22.4	.220/20.9	.216/20.9	.207/20.3	.187/20.3	.160/20.3	.132/20.3	.109/20.3	.100/20.3
	9	.115/88.8	.116/88.8	.118/88.8	.120/13.4	.119/13.4	.114/13.4	.104/13.4	.089/13.4	.072/13.4	.055/ 7.9	.038/ 7.9	.023/ 7.9	.014/ 8.1
	11	.118/19.0	.122/19.0	.131/19.0	.140/19.0	.145/19.0	.145/19.0	.136/19.0	.122/10.8	.102/10.8	.080/10.1	.058/ 9.8	.038/ 9.5	.029/ 9.5
	13	.130/23.3	.136/23.3	.149/19.0	.163/19.0	.172/19.0	.173/19.0	.166/19.0	.150/13.4	.127/13.4	.102/12.1	.075/11.6	.053/11.6	.043/11.6
	15	.143/23.3	.150/23.3	.165/23.3	.181/23.3	.193/23.3	.195/23.3	.188/23.3	.171/15.3	.147/14.6	.119/14.6	.090/13.7	.067/13.7	.057/13.7
	17	.152/23.3	.159/23.3	.176/23.3	.194/23.3	.207/23.3	.210/23.3	.204/23.3	.187/17.0	.162/15.7	.133/15.7	.104/15.3	.080/15.3	.070/15.0
	19	.157/23.3	.164/23.3	.181/23.3	.201/23.3	.214/23.3	.219/23.3	.213/23.3	.197/20.3	.173/17.5	.144/17.5	.114/17.0	.090/17.0	.080/17.0
25	7	.159/26.2	.166/23.3	.184/23.3	.204/23.3	.218/23.3	.224/23.3	.219/23.3	.203/20.3	.180/19.6	.151/19.6	.122/19.6	.098/19.6	.089/19.6
	9	.160/26.2	.168/26.2	.185/26.2	.205/24.3	.221/23.3	.227/23.3	.222/23.3	.207/20.9	.184/20.9	.156/20.3	.127/20.3	.104/20.3	.094/20.3
	11	.154/52.4	.156/52.4	.161/16.5	.165/16.5	.165/16.5	.155/16.5	.137/16.5	.113/16.5	.095/16.5	.059/16.5	.038/ 7.7	.022/ 7.9	.013/ 8.1
	13	.184/16.5	.186/16.5	.191/16.5	.195/16.5	.194/16.5	.184/16.5	.166/16.5	.140/16.5	.111/16.5	.082/16.5	.057/10.1	.036/ 9.5	.027/ 9.5
	15	.199/29.9	.202/29.9	.204/24.2	.215/24.2	.215/24.2	.204/24.2	.189/24.2	.163/16.5	.133/16.5	.102/12.6	.073/12.1	.050/11.6	.041/11.6
	17	.205/24.2	.208/24.2	.217/24.2	.226/24.2	.226/24.2	.217/24.2	.206/16.5	.181/16.5	.154/16.5	.118/14.6	.087/13.7	.063/13.7	.053/13.4
	19	.206/29.9	.210/29.9	.221/24.2	.232/24.2	.240/24.2	.238/24.2	.225/24.2	.202/18.0	.173/18.0	.141/17.5	.109/17.5	.085/17.0	.075/17.0
30	7	.199/29.9	.205/29.9	.218/29.9	.233/24.2	.240/24.2	.231/24.2	.229/24.2	.207/20.3	.179/20.3	.147/19.6	.117/19.6	.092/19.6	.083/19.6
	9	.202/29.9	.208/29.9	.225/29.9	.240/24.2	.240/24.2	.231/24.2	.231/24.2	.211/24.2	.184/20.9	.153/20.3	.123/20.3	.099/20.3	.089/20.3
	11	.196/29.9	.202/29.9	.215/29.9	.230/29.9	.240/24.2	.231/24.2	.231/24.2	.211/24.2	.184/20.9	.153/20.3	.123/20.3	.099/20.3	.089/20.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 258.7 FT FORWARD OF AP AND 21.9 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.016/ 9.2	.023/ 8.5	.037/ 7.9	.050/ 7.5	.060/ 7.5	.066/ 7.5	.069/ 7.5	.067/ 7.5	.060/ 7.3	.050/ 7.3	.037/ 7.3	.024/ 7.5	.016/ 7.7
	9	.029/11.6	.034/11.2	.048/10.8	.062/ 9.8	.073/ 9.5	.080/ 9.2	.082/ 9.0	.080/ 9.0	.072/ 9.0	.061/ 9.0	.047/ 9.0	.033/ 9.0	.026/ 9.0
	11	.037/12.6	.043/12.6	.055/12.1	.069/11.6	.080/11.6	.087/11.6	.089/11.2	.086/11.2	.078/11.2	.066/11.2	.052/10.8	.039/11.2	.032/11.2
	13	.042/14.3	.047/14.0	.059/13.7	.072/13.4	.082/13.1	.089/12.8	.091/12.6	.088/12.6	.081/12.6	.069/12.6	.056/12.6	.044/12.6	.039/12.8
	15	.044/15.7	.049/15.3	.060/15.3	.072/15.0	.082/14.6	.089/14.6	.091/14.3	.088/14.4	.081/14.0	.070/14.0	.057/14.0	.046/14.0	.042/14.3
	17	.045/17.0	.049/17.0	.059/16.5	.070/16.5	.080/16.1	.087/16.1	.089/15.7	.085/15.3	.079/15.3	.069/15.3	.057/15.3	.047/15.0	.043/15.0
	19	.043/19.0	.047/18.5	.057/18.5	.067/18.0	.076/18.0	.082/17.5	.084/17.5	.081/17.0	.075/17.0	.066/17.0	.055/17.0	.046/17.0	.042/17.0
	21	.042/19.6	.045/19.0	.054/18.5	.064/18.0	.072/18.5	.077/18.5	.079/18.5	.077/18.0	.072/18.0	.063/18.0	.053/18.0	.045/17.5	.041/17.5
	10	7	.017/10.5	.024/10.1	.038/ 8.3	.050/ 7.9	.060/ 7.9	.067/ 7.9	.069/ 7.5	.067/ 7.5	.060/ 7.5	.050/ 7.5	.037/ 7.3	.023/ 7.5
9		.029/12.6	.036/12.1	.049/11.6	.063/11.6	.074/11.6	.081/ 9.5	.083/ 9.2	.080/ 9.2	.072/ 9.0	.061/ 9.0	.046/ 9.0	.032/ 9.0	.025/ 9.2
11		.038/14.3	.044/14.3	.056/13.4	.070/13.4	.081/12.6	.088/12.6	.090/12.6	.086/12.6	.078/12.6	.066/12.6	.052/12.6	.039/12.6	.033/10.5
13		.043/15.7	.048/15.7	.060/15.0	.073/14.3	.083/13.7	.090/13.4	.092/13.4	.088/13.4	.081/12.6	.069/12.6	.056/12.6	.043/12.6	.038/12.8
15		.045/17.0	.049/17.0	.060/16.5	.072/16.5	.082/15.7	.089/15.0	.091/15.0	.088/15.0	.080/14.6	.070/14.0	.057/14.0	.046/14.0	.041/14.3
17		.045/18.5	.049/18.5	.059/17.5	.070/17.5	.080/17.0	.086/16.5	.088/16.1	.085/16.1	.078/15.7	.068/15.3	.057/15.3	.046/15.0	.042/15.0
19		.043/19.6	.047/19.6	.057/18.5	.067/18.5	.076/18.0	.082/18.0	.084/17.5	.081/17.5	.075/17.5	.066/17.0	.055/17.0	.046/17.0	.042/17.0
21		.042/20.9	.045/20.9	.054/20.3	.064/20.3	.072/20.3	.077/20.3	.079/20.3	.077/20.3	.071/19.0	.063/18.0	.053/18.0	.045/18.0	.041/18.0
15		7	.019/14.3	.026/14.3	.039/ 8.7	.051/ 8.5	.061/ 8.3	.068/ 8.1	.069/ 7.9	.067/ 7.9	.060/ 7.5	.050/ 7.5	.037/ 7.3	.023/ 7.5
	9	.031/17.5	.037/17.5	.051/16.5	.064/16.5	.075/16.5	.082/16.5	.084/ 9.5	.081/ 9.2	.073/ 9.2	.061/ 9.2	.046/ 9.0	.032/ 9.0	.025/ 9.2
	11	.039/17.5	.045/17.5	.057/16.5	.070/16.5	.081/15.7	.088/15.7	.090/15.7	.086/15.7	.078/15.7	.066/15.7	.052/15.7	.039/15.7	.033/10.5
	13	.043/19.6	.048/19.6	.060/18.5	.073/18.5	.083/17.7	.090/17.4	.092/17.4	.088/17.4	.080/16.6	.069/16.6	.056/16.6	.043/16.6	.038/12.8
	15	.045/20.3	.049/20.3	.059/19.6	.070/19.6	.080/19.0	.086/18.5	.088/18.1	.085/18.1	.078/17.7	.068/17.7	.057/17.7	.046/17.7	.041/15.3
	17	.045/20.9	.049/20.9	.059/20.3	.070/20.3	.080/20.3	.086/20.3	.088/20.3	.085/20.3	.078/19.6	.068/19.6	.057/19.6	.046/19.6	.041/17.0
	19	.043/20.9	.047/20.9	.057/20.3	.067/20.3	.076/19.0	.082/20.3	.084/19.0	.081/20.3	.075/20.3	.066/20.3	.055/20.3	.046/20.3	.042/17.0
	21	.041/22.4	.045/21.7	.054/20.9	.064/20.9	.072/20.3	.077/20.3	.079/20.3	.077/20.3	.071/19.0	.063/18.0	.053/18.0	.045/19.0	.040/19.6
	20	7	.022/13.4	.028/13.4	.041/13.4	.053/13.4	.063/13.4	.069/13.4	.070/ 7.1	.067/ 7.1	.060/ 7.1	.050/ 7.1	.037/ 7.3	.023/ 7.5
9		.033/19.0	.040/19.0	.053/18.0	.066/18.0	.077/18.0	.083/18.0	.085/ 9.8	.081/ 9.8	.073/ 9.5	.061/ 9.2	.046/ 9.0	.032/ 9.0	.025/ 9.2
11		.041/19.0	.046/19.0	.059/18.0	.072/18.0	.083/18.0	.089/18.0	.091/18.0	.087/18.0	.079/18.0	.066/18.0	.052/18.0	.038/18.0	.032/10.5
13		.046/23.3	.050/23.3	.061/23.3	.074/23.3	.085/23.3	.091/23.3	.092/23.3	.089/23.3	.080/23.3	.068/23.3	.055/23.3	.042/23.3	.037/12.6
15		.046/23.3	.051/23.3	.061/23.3	.073/23.3	.083/23.3	.089/23.3	.091/23.3	.087/23.3	.079/23.3	.067/23.3	.054/23.3	.041/23.3	.039/12.8
17		.045/23.3	.050/23.3	.060/23.3	.071/23.3	.081/23.3	.087/23.3	.089/23.3	.085/23.3	.077/23.3	.065/23.3	.052/23.3	.040/23.3	.037/12.6
19		.044/23.3	.048/23.3	.057/23.3	.067/23.3	.076/19.0	.082/23.3	.084/23.3	.081/23.3	.074/23.3	.062/23.3	.050/23.3	.038/23.3	.034/15.0
21		.042/23.3	.046/23.3	.054/23.3	.064/23.3	.072/23.3	.077/23.3	.079/23.3	.076/23.3	.071/23.3	.062/23.3	.052/23.3	.040/23.3	.037/12.6
25		7	.025/15.5	.031/16.5	.043/16.5	.056/16.5	.065/16.5	.071/16.5	.072/16.5	.069/16.5	.061/ 7.0	.050/ 7.0	.036/ 7.0	.022/ 7.5
	9	.037/16.5	.043/16.5	.056/16.5	.069/16.5	.079/16.5	.085/16.5	.086/16.5	.082/16.5	.073/16.5	.061/ 9.5	.046/ 9.2	.031/ 9.0	.024/ 9.2
	11	.045/16.5	.050/16.5	.062/16.5	.075/16.5	.085/16.5	.092/16.5	.092/16.5	.088/16.5	.079/16.5	.066/16.5	.051/16.5	.038/16.5	.032/10.5
	13	.049/24.2	.054/24.2	.065/24.2	.077/24.2	.087/24.2	.092/24.2	.093/24.2	.089/24.2	.080/24.2	.068/24.2	.054/24.2	.041/24.2	.039/12.8
	15	.050/24.2	.054/24.2	.065/24.2	.077/24.2	.087/24.2	.092/24.2	.093/24.2	.089/24.2	.080/24.2	.068/24.2	.054/24.2	.041/24.2	.039/12.8
	17	.049/24.2	.053/24.2	.064/24.2	.076/24.2	.086/24.2	.091/24.2	.092/24.2	.088/24.2	.079/24.2	.067/24.2	.053/24.2	.040/24.2	.037/12.6
	19	.047/24.2	.051/24.2	.062/24.2	.074/24.2	.084/24.2	.089/24.2	.090/24.2	.086/24.2	.077/24.2	.065/24.2	.051/24.2	.039/24.2	.034/15.0
	21	.045/24.2	.049/24.2	.059/24.2	.071/24.2	.081/24.2	.086/24.2	.087/24.2	.083/24.2	.074/24.2	.062/24.2	.050/24.2	.038/24.2	.034/15.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT ACC IN 0'S/ENCOUNTERED MODAL PERIOD, T, ° IN SECONDS
(ACC. X 100)
CENTER OF GRAVITY - 259.7 FT FORWARD OF AP AND 21.9 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180		
5	7	.037/ 8.7	.063/ 7.9	.106/ 7.0	.147/ 7.0	.179/ 7.0	.200/ 7.0	.208/ 7.0	.202/ 7.0	.184/ 7.0	.153/ 7.0	.114/ 7.0	.072/ 7.0	.048/ 7.1		
	9	.054/11.2	.073/10.8	.110/ 9.2	.147/ 8.7	.178/ 8.5	.198/ 8.3	.205/ 8.3	.200/ 8.3	.182/ 8.3	.154/ 8.3	.118/ 8.3	.081/ 8.5	.061/ 8.7		
	11	.062/12.1	.077/11.6	.104/11.5	.140/11.2	.170/11.2	.184/10.8	.194/10.1	.185/ 9.5	.170/ 9.2	.145/ 9.2	.113/ 9.2	.083/ 9.5	.069/11.6		
	13	.064/13.1	.076/12.8	.101/12.6	.128/12.1	.151/12.1	.169/11.6	.172/11.6	.168/11.6	.154/11.6	.133/11.6	.108/11.6	.081/11.6	.068/12.8		
	15	.062/14.6	.071/14.3	.093/13.7	.116/13.4	.136/13.4	.149/12.8	.154/12.6	.150/12.6	.134/12.6	.120/12.6	.098/12.8	.072/12.8	.064/13.7		
	17	.058/15.3	.066/15.3	.084/15.0	.104/14.9	.121/14.9	.132/14.3	.137/14.0	.134/13.7	.124/13.7	.108/13.4	.089/13.4	.072/13.7	.064/13.7		
	19	.053/17.0	.060/16.5	.075/16.1	.093/15.7	.107/15.3	.117/15.3	.122/15.3	.119/15.0	.110/14.6	.097/14.6	.080/14.6	.066/14.6	.059/14.6		
10	7	.036/10.1	.062/ 8.1	.105/ 7.9	.146/ 7.3	.178/ 7.0	.200/ 7.0	.209/ 7.0	.204/ 7.0	.185/ 7.0	.155/ 7.0	.117/ 7.0	.074/ 7.0	.050/ 7.1		
	9	.051/12.1	.070/11.6	.108/10.1	.146/ 8.7	.177/ 8.5	.198/ 8.3	.207/ 8.3	.202/ 8.3	.182/ 8.3	.157/ 8.3	.122/ 8.3	.085/ 8.5	.065/ 8.7		
	11	.058/13.4	.073/12.6	.105/12.1	.138/11.2	.165/11.2	.184/10.5	.192/10.1	.188/ 9.8	.173/ 9.5	.149/ 9.5	.118/ 9.5	.087/ 9.5	.073/ 9.8		
	13	.059/15.0	.071/14.3	.097/13.4	.126/12.6	.149/12.1	.169/12.1	.173/12.1	.170/11.6	.157/11.6	.137/11.2	.110/11.2	.085/11.2	.074/11.6		
	15	.057/16.1	.067/15.7	.089/15.0	.113/14.0	.134/13.7	.148/13.4	.154/13.1	.152/12.8	.141/12.8	.124/12.8	.102/12.6	.081/12.8	.072/12.8		
	17	.054/17.0	.062/16.5	.080/16.1	.101/15.3	.119/15.0	.132/14.6	.137/14.0	.135/14.0	.126/13.7	.111/13.7	.092/13.7	.075/14.3	.061/14.3		
	19	.049/18.0	.056/17.5	.072/17.0	.090/16.5	.106/16.5	.117/16.5	.122/16.5	.120/16.3	.113/15.7	.099/15.0	.083/15.7	.069/14.6	.062/14.6		
15	7	.045/19.0	.051/18.5	.065/18.0	.080/17.5	.094/17.0	.104/16.5	.108/16.5	.107/15.7	.100/15.7	.089/15.7	.075/15.7	.062/16.5	.057/16.5		
	9	.064/21.6	.069/19.0	.083/18.3	.101/17.5	.120/16.5	.139/15.3	.158/14.0	.177/12.6	.196/11.2	.215/9.8	.234/8.3	.253/6.7	.272/5.1		
	11	.083/24.2	.088/21.6	.102/20.9	.120/19.0	.139/17.5	.158/16.1	.177/14.6	.196/13.1	.215/11.6	.234/10.1	.253/8.5	.272/6.9	.291/5.3		
	13	.102/26.8	.107/24.2	.121/23.5	.139/21.6	.158/19.9	.177/18.2	.196/16.5	.215/14.6	.234/13.1	.253/11.6	.272/10.1	.291/8.5	.310/6.9		
	15	.121/29.4	.126/26.8	.140/26.1	.158/24.2	.177/22.5	.196/20.9	.215/19.2	.234/17.5	.253/15.8	.272/14.2	.291/12.6	.310/11.0	.329/9.4		
	17	.140/32.0	.145/29.4	.159/28.7	.177/26.8	.196/25.1	.215/23.5	.234/21.8	.253/20.1	.272/18.5	.291/16.9	.310/15.3	.329/13.7	.348/12.1		
	19	.159/34.6	.164/32.0	.178/31.3	.196/29.4	.215/27.7	.234/26.1	.253/24.4	.272/22.8	.291/21.2	.310/19.6	.329/18.0	.348/16.4	.367/14.8		
20	7	.032/13.4	.059/13.4	.102/13.4	.144/ 6.5	.178/ 6.5	.200/ 6.5	.210/ 6.5	.206/ 6.5	.189/ 6.7	.159/ 6.7	.120/ 6.7	.078/ 7.0	.053/ 7.1		
	9	.044/19.0	.065/19.0	.104/10.1	.143/ 9.5	.176/ 9.2	.199/ 9.0	.209/ 8.7	.207/ 8.5	.191/ 8.5	.164/ 8.5	.128/ 8.5	.091/ 8.5	.072/ 8.7		
	11	.049/19.0	.065/19.0	.098/13.4	.133/10.8	.163/10.5	.184/10.1	.194/10.1	.193/ 9.8	.180/ 9.8	.156/ 9.5	.126/ 9.5	.096/ 9.5	.081/ 9.4		
	13	.050/19.0	.063/19.0	.090/19.0	.120/14.0	.146/13.4	.165/11.6	.175/11.6	.174/11.2	.163/11.2	.144/11.2	.118/10.8	.093/10.8	.082/11.2		
	15	.048/19.0	.059/19.0	.082/19.0	.107/14.6	.130/14.6	.147/14.0	.155/13.4	.155/13.4	.146/13.4	.130/12.6	.108/12.6	.088/12.6	.079/12.6		
	17	.045/23.3	.054/23.3	.074/19.0	.096/19.0	.115/15.3	.138/14.6	.147/14.0	.138/14.6	.131/14.3	.116/14.0	.098/14.0	.081/14.3	.074/14.6		
	19	.042/23.3	.049/23.3	.066/19.0	.085/19.0	.102/19.0	.115/15.7	.122/15.7	.122/15.3	.116/15.3	.104/15.0	.089/15.0	.074/15.0	.064/15.0		
25	7	.030/16.5	.057/16.5	.101/16.5	.143/ 6.5	.178/ 6.5	.201/ 6.5	.211/ 6.5	.207/ 6.5	.190/ 6.5	.161/ 6.7	.122/ 6.7	.080/ 7.0	.055/ 7.1		
	9	.041/16.5	.062/16.5	.102/16.5	.142/16.5	.176/16.5	.199/16.5	.211/ 7.9	.209/ 8.1	.194/ 8.1	.167/ 8.3	.132/ 8.3	.094/ 8.5	.078/ 8.7		
	11	.045/16.5	.060/16.5	.096/16.5	.131/16.5	.158/16.5	.184/16.5	.195/10.5	.195/10.1	.183/10.1	.160/ 9.8	.130/ 9.5	.099/ 9.8	.083/ 9.8		
	13	.046/16.5	.060/16.5	.088/16.5	.118/16.5	.145/16.5	.165/16.5	.176/11.6	.176/11.6	.166/11.2	.147/11.2	.122/10.8	.097/10.8	.086/11.2		
	15	.045/24.2	.056/24.2	.079/16.5	.105/16.5	.129/16.5	.146/16.5	.156/12.6	.156/12.6	.149/12.6	.133/12.6	.112/12.6	.091/12.1	.082/12.1		
	17	.042/24.2	.051/24.2	.071/16.5	.094/16.5	.114/16.5	.130/16.5	.139/16.5	.139/16.5	.132/14.0	.119/14.0	.101/14.0	.084/14.0	.077/14.3		
	19	.039/24.2	.047/24.2	.064/24.2	.083/16.5	.101/16.5	.115/16.5	.122/16.5	.122/16.5	.118/16.5	.106/15.0	.091/15.0	.077/15.0	.070/15.0		
	21	.036/24.2	.043/24.2	.057/24.2	.074/16.5	.090/16.5	.102/16.5	.109/16.5	.110/16.5	.105/16.5	.095/16.5	.082/16.5	.069/16.5	.064/16.5		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DD 463

SHORTCRESTED
PMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
CENTER OF GRAVITY - 258.7 FT FORWARD OF AP AND 21.9 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	0.34/9.5	0.48/8.3	0.74/7.9	1.01/7.5	1.24/7.0	1.41/7.0	1.49/7.0	1.68/7.0	1.38/6.8	1.20/6.7	0.98/6.7	0.75/6.7	0.44/6.8	0.11/6.8	0.00/6.8	0.00/6.8
9	7	0.71/12.6	0.81/12.1	1.05/11.6	1.32/10.1	1.55/9.8	1.72/9.5	1.81/9.2	1.99/9.0	1.69/9.0	1.47/9.0	1.28/9.0	1.07/9.0	0.89/9.2	0.63/9.2	0.39/9.2	0.11/9.2
11	7	1.14/16.0	1.21/14.0	1.38/13.4	1.60/13.1	1.80/12.6	1.95/12.1	2.02/11.6	2.00/11.2	1.90/11.2	1.74/11.2	1.55/11.2	1.39/11.2	1.13/11.2	0.89/11.2	0.63/11.2	0.39/11.2
13	7	1.50/19.7	1.55/17.3	1.67/15.3	1.84/14.6	2.00/14.3	2.11/13.7	2.17/13.4	2.15/13.1	2.07/12.8	1.94/12.6	1.80/12.6	1.66/12.6	1.43/12.6	1.13/12.6	0.89/12.6	0.63/12.6
15	7	1.77/17.5	1.81/17.0	1.90/17.0	2.02/16.5	2.14/16.1	2.21/15.7	2.28/15.3	2.26/15.0	2.20/14.6	2.10/14.3	1.99/14.3	1.80/14.3	1.57/14.3	1.27/14.3	0.97/14.3	0.67/14.3
17	7	1.95/19.0	1.98/19.0	2.05/19.0	2.14/18.5	2.24/18.0	2.31/17.5	2.34/17.0	2.33/17.0	2.28/16.5	2.20/16.5	2.12/16.5	2.06/16.5	2.03/16.5	2.03/16.5	2.03/16.5	2.03/16.5
19	7	2.08/19.6	2.10/19.6	2.16/19.6	2.23/19.6	2.30/19.6	2.36/19.0	2.38/19.0	2.38/19.0	2.34/18.0	2.28/18.0	2.22/18.0	2.17/17.5	2.15/17.5	2.15/17.5	2.15/17.5	2.15/17.5
21	7	2.19/22.4	2.21/22.4	2.25/22.4	2.30/21.7	2.36/21.7	2.40/20.9	2.42/20.9	2.42/20.3	2.39/20.3	2.34/19.6	2.30/19.6	2.26/19.6	2.25/19.6	2.25/19.6	2.25/19.6	2.25/19.6
10	7	0.32/13.4	0.46/10.1	0.73/7.9	1.01/7.5	1.26/7.0	1.43/7.0	1.53/7.0	1.53/6.8	1.44/6.8	1.27/6.8	1.04/7.0	0.81/7.1	0.71/7.3	0.71/7.3	0.71/7.3	0.71/7.3
9	7	0.67/15.0	0.79/15.0	1.03/12.1	1.31/10.5	1.57/9.8	1.76/9.2	1.87/9.0	1.88/9.0	1.80/8.7	1.64/8.5	1.43/8.5	1.24/8.5	1.07/8.5	0.81/8.5	0.57/8.5	0.33/8.5
11	7	1.11/16.1	1.18/16.1	1.36/15.7	1.59/15.3	1.80/15.3	1.97/15.7	2.07/15.7	2.08/15.7	2.00/15.2	1.87/10.8	1.71/10.8	1.57/10.8	1.43/10.8	1.27/10.8	1.13/10.8	0.97/10.8
13	7	1.46/17.5	1.51/17.5	1.64/17.0	1.82/16.0	2.01/15.0	2.12/14.6	2.20/13.7	2.21/13.4	2.15/12.8	2.04/12.6	1.92/12.6	1.81/12.6	1.67/12.6	1.53/12.6	1.39/12.6	1.25/12.6
15	7	1.73/19.0	1.77/19.0	1.87/19.0	2.00/18.0	2.13/17.5	2.23/16.5	2.29/15.7	2.30/15.3	2.26/14.8	2.17/14.6	2.08/14.3	2.00/14.3	1.87/14.3	1.73/14.3	1.59/14.3	1.45/14.3
17	7	1.92/20.9	1.94/20.3	2.02/20.3	2.12/19.6	2.22/19.0	2.30/18.0	2.35/17.5	2.35/17.0	2.32/16.5	2.26/16.5	2.19/16.5	2.13/16.5	2.11/16.5	2.11/16.5	2.11/16.5	2.11/16.5
19	7	2.05/21.7	2.07/21.7	2.13/21.7	2.21/21.7	2.29/20.9	2.35/20.3	2.39/19.6	2.39/19.0	2.37/18.5	2.32/18.0	2.27/18.0	2.22/17.5	2.21/17.5	2.21/17.5	2.21/17.5	2.21/17.5
21	7	2.16/24.2	2.18/24.2	2.22/24.2	2.28/23.3	2.34/22.4	2.39/21.7	2.42/20.9	2.43/20.3	2.41/20.3	2.37/19.6	2.33/19.6	2.30/19.6	2.29/19.6	2.29/19.6	2.29/19.6	2.29/19.6
15	7	0.31/14.6	0.45/8.7	0.72/8.3	1.01/7.0	1.26/7.0	1.45/7.0	1.55/7.0	1.56/7.0	1.47/7.0	1.31/7.1	1.08/7.3	0.85/7.5	0.75/7.5	0.75/7.5	0.75/7.5	0.75/7.5
9	7	0.67/19.6	0.77/19.6	1.01/17.5	1.31/12.1	1.59/9.2	1.80/9.0	1.94/8.7	1.94/8.5	1.93/8.3	1.79/8.3	1.61/8.3	1.44/8.3	1.37/8.3	1.37/8.3	1.37/8.3	1.37/8.3
11	7	1.04/20.3	1.15/20.3	1.33/20.3	1.57/20.3	1.81/20.3	2.00/12.0	2.13/11.6	2.18/11.2	2.14/10.8	2.05/10.5	1.92/10.1	1.80/10.1	1.75/10.1	1.75/10.1	1.75/10.1	1.75/10.1
13	7	1.43/20.3	1.54/20.3	1.61/20.3	1.80/20.3	1.99/15.7	2.14/15.3	2.24/15.0	2.28/15.3	2.26/15.0	2.18/12.6	2.09/12.6	2.01/12.6	1.97/12.6	1.97/12.6	1.97/12.6	1.97/12.6
15	7	1.70/21.7	1.73/21.7	1.83/21.7	1.97/20.9	2.12/20.3	2.24/17.5	2.33/17.0	2.36/17.5	2.34/17.0	2.28/16.5	2.21/16.5	2.15/16.5	2.13/16.5	2.13/16.5	2.13/16.5	2.13/16.5
17	7	1.86/22.4	1.91/22.4	1.98/22.4	2.09/22.4	2.21/20.9	2.30/20.3	2.37/18.0	2.40/17.5	2.38/17.0	2.34/16.5	2.29/16.5	2.24/16.5	2.22/16.5	2.22/16.5	2.22/16.5	2.22/16.5
19	7	2.02/24.2	2.04/24.2	2.10/24.2	2.18/23.3	2.27/22.4	2.35/20.9	2.40/20.3	2.41/20.3	2.41/19.0	2.38/18.0	2.34/18.0	2.31/17.5	2.29/17.5	2.29/17.5	2.29/17.5	2.29/17.5
21	7	2.13/26.2	2.15/26.2	2.19/25.1	2.26/25.1	2.33/24.2	2.39/23.3	2.43/22.4	2.45/20.9	2.44/20.3	2.42/19.6	2.39/19.6	2.36/19.6	2.35/19.6	2.35/19.6	2.35/19.6	2.35/19.6
20	7	0.30/13.7	0.44/13.7	0.71/13.7	1.00/7.0	1.26/7.0	1.45/7.0	1.55/7.0	1.56/7.0	1.48/7.1	1.32/7.1	1.09/7.7	0.87/7.7	0.76/7.7	0.76/7.7	0.76/7.7	0.76/7.7
9	7	0.64/19.0	0.75/19.0	1.00/19.0	1.30/19.0	1.60/9.5	1.84/9.0	2.00/8.5	2.06/8.3	2.04/8.3	1.92/8.5	1.77/8.5	1.62/8.5	1.55/8.5	1.55/8.5	1.55/8.5	1.55/8.5
11	7	1.04/23.3	1.11/23.3	1.31/23.3	1.56/23.3	1.82/23.3	2.04/11.6	2.20/11.2	2.28/10.8	2.29/10.1	2.23/9.8	2.13/9.5	2.04/9.2	2.01/9.2	2.01/9.2	2.01/9.2	2.01/9.2
13	7	1.38/26.2	1.44/26.2	1.58/26.2	1.78/26.2	1.98/23.3	2.17/15.0	2.30/14.0	2.38/13.7	2.39/12.6	2.35/12.6	2.29/12.1	2.23/11.6	2.21/11.6	2.21/11.6	2.21/11.6	2.21/11.6
15	7	1.66/26.2	1.69/26.2	1.80/26.2	1.95/26.2	2.11/23.3	2.26/19.0	2.37/15.7	2.43/15.3	2.44/15.0	2.38/14.6	2.37/14.3	2.33/14.3	2.32/14.3	2.32/14.3	2.32/14.3	2.32/14.3
17	7	1.84/27.3	1.87/27.3	1.95/27.3	2.07/26.2	2.20/26.2	2.31/19.0	2.40/18.0	2.45/17.5	2.46/17.0	2.44/16.5	2.41/16.5	2.38/16.5	2.37/16.5	2.37/16.5	2.37/16.5	2.37/16.5
19	7	1.94/27.3	2.01/27.3	2.07/27.3	2.16/27.3	2.26/26.2	2.35/23.3	2.42/20.3	2.46/19.6	2.47/19.0	2.46/18.0	2.44/18.0	2.42/17.5	2.41/17.5	2.41/17.5	2.41/17.5	2.41/17.5
21	7	2.11/28.6	2.12/27.3	2.17/27.3	2.24/27.3	2.32/27.3	2.39/26.2	2.45/23.3	2.48/20.9	2.47/20.3	2.48/19.6	2.47/19.6	2.45/19.6	2.44/19.6	2.44/19.6	2.44/19.6	2.44/19.6
25	7	0.30/16.5	0.44/16.5	0.71/16.5	1.00/16.5	1.25/16.5	1.44/7.0	1.54/7.0	1.55/7.1	1.46/7.5	1.30/7.5	1.07/7.7	0.84/7.9	0.73/8.1	0.73/8.1	0.73/8.1	0.73/8.1
9	7	0.62/16.5	0.73/16.5	0.99/16.5	1.30/16.5	1.61/16.5	1.86/16.5	2.04/16.5	2.12/8.5	2.11/8.5	2.01/8.7	1.86/8.7	1.72/8.7	1.66/8.7	1.66/8.7	1.66/8.7	1.66/8.7
11	7	1.01/33.1	1.09/33.1	1.29/33.1	1.55/33.1	1.83/16.5	2.08/16.5	2.26/11.2	2.38/10.5	2.41/9.8	2.34/9.2	2.31/9.2	2.24/9.2	2.21/9.2	2.21/9.2	2.21/9.2	2.21/9.2
13	7	1.36/33.1	1.41/33.1	1.56/33.1	1.76/24.2	1.99/24.2	2.19/16.5	2.36/13.4	2.47/13.1	2.52/12.6	2.52/12.1	2.48/11.2	2.45/11.2	2.43/11.2	2.43/11.2	2.43/11.2	2.43/11.2
15	7	1.63/33.1	1.67/33.1	1.78/33.1	1.94/33.1	2.11/24.2	2.33/16.5	2.41/16.5	2.50/16.5	2.51/16.5	2.56/16.5	2.54/16.5	2.53/16.5	2.53/16.5	2.53/16.5	2.53/16.5	2.53/16.5
17	7	1.82/33.1	1.85/33.1	1.94/33.1	2.06/33.1	2.19/24.2	2.33/24.2	2.43/18.0	2.51/17.5	2.55/17.0	2.56/16.5	2.55/16.5	2.54/16.5	2.53/16.5	2.53/16.5	2.53/16.5	2.53/16.5
19	7	1.97/33.1	1.99/33.1	2.06/33.1	2.15/33.1	2.26/33.1	2.36/24.2	2.45/20.3	2.51/19.6	2.54/19.6	2.55/18.0	2.55/18.0	2.54/18.0	2.53/18.0	2.53/18.0	2.53/18.0	2.53/18.0
21	7	2.04/33.1	2.11/33.1	2.16/33.1	2.23/33.1	2.32/33.1	2.40/24.2	2.47/24.2	2.52/20.9	2.55/20.3	2.56/20.3	2.55/19.6	2.54/19.6	2.53/19.6	2.53/19.6	2.53/19.6	2.53/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DD 963

SHORTCUTTED
RMS VEL VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 258.7 FT FORWARD OF AP AND 21.9 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.025/9.2	.039/7.7	.055/6.8	.092/6.5	.115/6.3	.132/6.3	.140/6.3	.140/6.3	.132/6.3	.116/6.3	.095/6.3	.073/6.3	.063/5.7
	9	.041/12.1	.051/11.6	.073/9.5	.098/9.0	.120/8.3	.135/8.3	.144/7.9	.145/7.9	.137/7.9	.123/7.9	.107/10.1	.087/8.5	.079/8.5
	11	.056/13.4	.063/13.1	.079/12.5	.098/12.1	.116/11.2	.129/10.8	.137/10.1	.137/10.1	.132/9.8	.121/10.1	.107/10.1	.094/10.1	.088/10.1
	13	.066/14.6	.070/14.6	.082/14.3	.096/13.7	.110/13.1	.121/12.6	.127/12.1	.128/12.1	.125/11.6	.116/11.6	.106/11.6	.097/11.6	.094/11.5
	15	.071/15.7	.074/15.7	.082/15.7	.093/15.3	.104/14.5	.113/14.0	.118/13.7	.119/13.4	.117/13.1	.111/13.1	.104/12.8	.098/12.8	.095/12.8
	17	.073/17.5	.075/17.5	.081/17.0	.089/17.0	.098/16.5	.105/15.7	.109/15.0	.110/15.0	.109/14.6	.105/14.6	.100/14.3	.095/14.3	.094/14.3
	19	.072/19.0	.074/19.0	.078/19.0	.085/18.5	.092/17.5	.097/17.5	.101/17.0	.102/16.5	.101/16.5	.098/16.5	.095/16.5	.092/16.5	.090/16.5
10	7	.021/10.1	.036/7.7	.064/6.7	.092/6.5	.117/6.5	.145/6.5	.146/6.5	.148/6.5	.140/6.5	.125/6.5	.105/6.7	.083/6.8	.073/6.8
	9	.035/15.0	.046/13.4	.069/9.8	.096/9.8	.121/7.9	.147/7.9	.153/7.5	.157/7.5	.153/7.5	.141/7.7	.125/7.9	.109/7.9	.102/8.1
	11	.048/15.7	.055/15.7	.073/15.3	.095/12.1	.116/11.2	.133/10.1	.144/9.8	.149/9.5	.147/9.5	.139/9.2	.128/9.2	.118/9.2	.113/9.5
	13	.057/17.0	.062/17.0	.075/16.5	.092/15.7	.109/13.4	.123/12.6	.132/12.1	.138/12.1	.137/11.6	.133/11.2	.125/11.2	.118/11.2	.115/11.2
	15	.062/18.0	.066/18.0	.075/17.5	.088/17.0	.102/15.4	.114/14.6	.122/14.0	.127/13.4	.125/12.8	.120/12.8	.115/12.8	.110/12.8	.109/12.8
	17	.064/19.6	.067/19.6	.074/19.0	.084/18.5	.095/17.5	.105/16.5	.112/15.3	.117/15.0	.118/14.6	.116/14.3	.113/14.3	.110/14.3	.109/14.3
	19	.064/20.9	.065/20.9	.072/20.3	.080/19.6	.089/18.5	.097/18.0	.103/17.0	.107/16.5	.109/16.5	.108/16.5	.106/16.5	.104/16.5	.103/16.5
15	7	.018/11.6	.034/8.3	.062/6.5	.092/6.5	.118/6.5	.138/6.5	.150/6.7	.153/6.7	.147/6.7	.133/6.8	.112/7.1	.091/7.3	.081/7.5
	9	.030/17.5	.041/12.1	.066/9.0	.096/7.9	.124/7.5	.147/7.5	.163/7.5	.171/7.7	.171/7.7	.162/7.9	.149/7.9	.135/8.1	.129/8.1
	11	.041/20.3	.049/20.3	.068/20.3	.092/12.1	.117/9.8	.139/9.2	.155/9.0	.164/8.7	.167/8.7	.164/8.7	.156/8.7	.149/8.7	.145/8.7
	13	.049/20.3	.054/20.3	.069/20.3	.088/15.3	.109/12.8	.127/12.6	.142/12.1	.151/11.6	.155/11.2	.155/11.2	.151/10.1	.147/10.1	.145/10.1
	15	.054/20.9	.058/20.9	.069/20.3	.088/20.3	.101/15.4	.116/14.0	.129/13.7	.138/13.4	.142/12.9	.143/12.8	.141/12.9	.139/12.6	.138/12.6
	17	.056/21.7	.059/21.7	.068/21.7	.080/20.9	.093/18.0	.106/17.0	.117/15.3	.125/15.0	.130/14.5	.131/14.3	.130/14.3	.129/14.3	.129/14.3
	19	.057/23.3	.059/23.3	.066/22.4	.075/21.7	.087/20.3	.098/18.0	.107/17.5	.114/17.0	.119/16.5	.121/16.5	.120/16.5	.120/16.5	.120/16.5
20	7	.016/13.7	.032/9.2	.061/6.5	.091/6.5	.118/6.7	.140/6.7	.153/7.0	.157/7.0	.151/7.0	.137/7.1	.117/7.1	.095/7.7	.085/7.7
	9	.025/19.0	.037/19.0	.064/9.5	.096/7.1	.127/7.5	.154/7.7	.174/7.7	.185/7.9	.188/8.1	.183/8.1	.172/8.3	.160/8.3	.155/8.3
	11	.034/23.3	.043/23.3	.064/19.0	.091/10.8	.119/9.5	.145/8.3	.167/8.3	.181/8.5	.189/8.7	.191/8.5	.187/8.7	.183/8.7	.181/8.7
	13	.041/23.3	.048/23.3	.064/23.3	.086/14.6	.110/12.1	.132/11.6	.152/11.2	.167/9.8	.176/9.2	.180/9.0	.181/9.0	.179/9.0	.178/9.0
	15	.046/26.2	.051/26.2	.061/26.2	.081/23.3	.101/15.3	.120/14.0	.137/13.7	.151/12.8	.160/12.6	.165/12.1	.167/11.2	.167/10.4	.167/10.1
	17	.049/26.2	.052/26.2	.062/26.2	.076/26.2	.093/19.0	.109/15.7	.124/14.3	.136/15.0	.145/14.6	.150/14.3	.153/14.3	.153/14.3	.154/14.3
	19	.050/27.3	.052/27.3	.060/27.3	.072/26.2	.086/19.6	.099/19.0	.112/17.0	.123/16.5	.131/16.1	.136/16.1	.139/16.1	.140/16.1	.140/16.1
25	7	.014/16.5	.031/16.5	.060/6.5	.090/6.7	.118/7.0	.140/7.0	.153/7.0	.157/7.0	.152/7.0	.138/7.1	.117/7.7	.095/7.7	.084/7.9
	9	.021/16.5	.034/16.5	.062/16.5	.096/7.5	.129/7.7	.159/7.9	.182/7.9	.196/8.1	.201/8.3	.198/8.5	.189/8.5	.178/8.7	.174/8.7
	11	.029/16.5	.038/16.5	.061/16.5	.091/16.5	.122/12.1	.152/8.3	.178/8.5	.198/8.7	.210/8.7	.215/9.0	.215/9.0	.213/9.0	.212/9.0
	13	.035/24.2	.042/24.2	.060/16.5	.084/16.5	.112/12.1	.139/11.2	.167/9.0	.183/9.0	.197/9.0	.204/9.2	.210/9.2	.211/9.2	.211/9.2
	15	.039/33.1	.044/33.1	.058/24.2	.079/15.5	.101/15.5	.125/13.4	.146/12.8	.165/12.1	.179/10.1	.188/9.2	.194/9.2	.196/9.2	.197/9.2
	17	.042/33.1	.046/33.1	.057/33.1	.073/24.2	.093/16.5	.111/16.5	.131/15.0	.148/14.6	.160/14.3	.170/13.7	.174/12.6	.178/10.1	.179/10.1
	19	.043/33.1	.047/33.1	.056/33.1	.069/24.2	.085/18.0	.102/18.0	.118/17.0	.133/16.5	.144/16.5	.153/15.7	.158/15.3	.161/15.0	.162/15.0
	21	.044/33.1	.047/33.1	.054/33.1	.065/33.1	.079/24.2	.094/20.3	.108/18.5	.120/18.0	.130/17.5	.136/17.0	.143/16.5	.146/16.5	.147/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DD 943																
SHORTCRESTED RMS VEL ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS OE (ACC. X 100) CENTER OF GRAVITY - 25.9.7 FT FORWARD OF AP AND 21.9 FT FROM BL																
V	T	SHIP HEADING ANGLE IN DEGREES														
		0	15	30	45	60	75	90	105	120	135	150	165	180		
5	7	.062/ 8.3	.103/ 6.7	.194/ 6.3	.280/ 6.3	.354/ 6.3	.407/ 6.3	.435/ 6.3	.437/ 6.3	.412/ 6.3	.365/ 6.3	.300/ 5.7	.234/ 5.7	.201/ 5.7		
	9	.080/11.6	.113/ 9.5	.182/ 7.0	.255/ 6.7	.319/ 6.5	.367/ 6.3	.394/ 6.3	.398/ 6.3	.379/ 6.3	.341/ 6.3	.290/ 6.3	.239/ 6.3	.215/ 5.7		
	11	.093/13.1	.114/12.8	.163/12.1	.219/ 9.2	.270/ 7.9	.309/ 7.3	.331/ 7.1	.336/ 7.1	.323/ 7.5	.295/ 7.5	.258/ 9.0	.222/ 9.2	.206/ 9.2		
	13	.097/14.0	.112/14.0	.146/13.4	.188/12.6	.227/11.6	.258/10.8	.276/ 9.8	.281/ 9.8	.273/ 9.8	.253/10.5	.226/10.5	.202/10.8	.191/10.8		
	15	.096/15.0	.106/15.0	.131/14.3	.163/13.7	.193/12.8	.217/12.1	.232/11.6	.237/11.6	.231/11.6	.217/11.6	.198/11.6	.181/11.6	.174/11.6		
	17	.091/15.7	.098/15.0	.117/15.7	.141/15.0	.165/14.3	.184/13.4	.197/12.8	.202/12.6	.198/12.6	.188/12.6	.174/12.6	.162/12.6	.156/12.6		
10	7	.048/ 7.7	.100/ 7.0	.189/ 6.3	.282/ 6.3	.363/ 6.3	.425/ 6.3	.461/ 6.3	.470/ 6.3	.451/ 6.3	.407/ 6.3	.344/ 6.3	.279/ 6.3	.247/ 6.3		
	9	.062/12.1	.099/ 7.9	.173/ 6.7	.255/ 6.5	.331/ 6.5	.391/ 6.5	.431/ 6.7	.447/ 6.7	.439/ 6.7	.409/ 6.8	.364/ 7.3	.318/ 7.5	.298/ 7.7		
	11	.072/15.3	.096/15.3	.151/10.1	.216/ 6.7	.278/ 6.7	.329/ 6.8	.364/ 7.0	.382/ 7.1	.381/ 7.5	.362/ 7.7	.334/ 7.9	.305/ 8.1	.292/ 8.3		
	13	.076/16.1	.092/16.1	.132/15.3	.182/12.1	.231/ 7.1	.273/ 7.3	.303/ 7.5	.320/ 7.7	.322/ 8.1	.312/ 8.5	.293/ 8.7	.275/ 9.2	.266/ 9.2		
	15	.075/17.5	.087/17.0	.116/16.5	.155/15.3	.194/14.5	.228/12.1	.253/11.2	.268/11.2	.272/10.5	.266/10.5	.255/10.3	.242/11.2	.237/11.2		
	17	.072/18.5	.080/18.0	.103/17.5	.133/16.5	.165/14.6	.192/13.4	.214/12.6	.227/12.6	.231/12.6	.229/12.6	.221/12.6	.204/12.6	.198/12.6		
15	7	.038/ 8.3	.093/ 6.3	.185/ 6.3	.284/ 6.3	.373/ 6.3	.442/ 6.5	.485/ 6.5	.500/ 6.5	.485/ 6.5	.443/ 6.7	.381/ 6.7	.316/ 7.1	.284/ 7.3		
	9	.048/12.1	.084/ 8.5	.164/ 6.3	.259/ 6.5	.348/ 6.7	.423/ 7.0	.477/ 7.0	.507/ 7.1	.511/ 7.3	.491/ 7.5	.454/ 7.7	.416/ 7.9	.398/ 7.9		
	11	.055/20.3	.082/20.3	.143/ 7.0	.217/ 7.0	.292/ 7.0	.358/ 7.1	.410/ 7.3	.444/ 7.7	.458/ 7.7	.454/ 7.9	.436/ 8.1	.416/ 8.1	.407/ 8.1		
	13	.058/20.3	.077/20.3	.122/12.8	.181/ 7.0	.241/ 7.1	.291/ 7.3	.342/ 7.7	.373/ 7.9	.390/ 8.1	.393/ 8.1	.386/ 8.3	.376/ 8.3	.371/ 8.3		
	15	.056/20.9	.066/20.9	.093/20.3	.129/15.7	.169/13.4	.201/ 7.1	.246/ 7.7	.285/ 7.7	.313/ 7.9	.333/ 8.5	.333/ 8.5	.328/ 8.7	.325/ 8.7		
	17	.054/21.7	.061/21.7	.082/21.7	.112/20.3	.144/15.3	.175/14.0	.203/13.4	.224/12.8	.237/ 8.5	.244/ 8.7	.246/ 9.0	.245/ 9.0	.244/ 9.0		
20	7	.031/ 9.0	.088/ 6.3	.183/ 6.3	.286/ 6.3	.380/ 6.5	.455/ 6.5	.504/ 6.5	.522/ 6.7	.510/ 6.7	.469/ 7.0	.407/ 7.1	.340/ 7.5	.308/ 7.7		
	9	.038/14.0	.081/ 9.2	.165/ 6.5	.266/ 7.0	.367/ 7.0	.456/ 7.1	.525/ 7.1	.569/ 7.7	.585/ 7.7	.578/ 7.9	.549/ 8.1	.517/ 8.1	.502/ 8.3		
	11	.042/19.0	.072/19.0	.139/ 7.0	.223/ 7.0	.311/ 7.1	.394/ 7.1	.464/ 7.7	.516/ 7.9	.547/ 8.1	.559/ 8.3	.556/ 8.3	.546/ 8.3	.541/ 8.5		
	13	.044/23.3	.066/23.3	.117/11.2	.184/ 7.0	.257/ 7.7	.327/ 7.7	.389/ 7.9	.439/ 8.1	.473/ 8.3	.492/ 8.5	.499/ 8.5	.498/ 8.5	.497/ 8.5		
	15	.045/23.3	.069/23.3	.100/14.5	.153/ 7.1	.212/ 7.7	.271/ 7.9	.324/ 8.1	.368/ 8.3	.400/ 8.5	.420/ 8.5	.430/ 8.7	.433/ 8.7	.434/ 8.7		
	17	.044/26.2	.055/26.2	.086/26.2	.129/14.6	.178/ 7.7	.226/ 7.9	.271/ 8.1	.309/ 8.3	.337/ 8.5	.357/ 8.7	.367/ 8.7	.372/ 8.7	.373/ 8.7		
25	7	.029/16.5	.086/ 5.7	.182/ 6.3	.288/ 6.5	.386/ 6.5	.464/ 6.7	.515/ 7.0	.535/ 7.0	.523/ 7.0	.482/ 7.0	.417/ 7.1	.348/ 7.7	.315/ 7.9		
	9	.031/16.5	.077/16.5	.166/ 7.0	.274/ 7.0	.366/ 7.1	.447/ 7.5	.508/ 7.7	.562/ 7.9	.585/ 7.9	.643/ 8.3	.628/ 8.3	.601/ 8.5	.584/ 8.5		
	11	.033/16.5	.066/16.5	.138/ 7.0	.231/ 7.3	.332/ 7.7	.430/ 7.9	.517/ 8.1	.587/ 8.3	.635/ 8.5	.652/ 8.7	.671/ 8.7	.670/ 8.7	.668/ 8.7		
	13	.035/16.5	.058/16.5	.114/ 7.0	.190/ 7.5	.274/ 7.7	.360/ 8.3	.440/ 8.3	.507/ 8.5	.560/ 8.7	.598/ 8.7	.616/ 9.0	.625/ 9.0	.627/ 9.0		
	15	.035/24.2	.052/24.2	.096/16.5	.137/ 7.5	.227/ 7.9	.299/ 8.3	.367/ 8.3	.427/ 8.7	.476/ 8.7	.512/ 9.0	.534/ 9.0	.546/ 9.0	.549/ 9.0		
	17	.034/33.1	.044/33.1	.071/16.5	.112/16.5	.159/ 8.3	.210/ 8.5	.259/ 8.5	.304/ 8.7	.347/ 9.0	.370/ 9.0	.389/ 9.0	.400/ 9.0	.404/ 9.0		
21	7	.032/33.1	.040/33.1	.063/33.1	.096/16.5	.136/ 7.9	.179/ 8.3	.221/ 8.5	.259/ 8.7	.291/ 9.0	.316/ 9.0	.334/ 9.0	.344/ 9.0	.347/ 9.0		
	9	.032/33.1	.040/33.1	.063/33.1	.096/16.5	.136/ 7.9	.179/ 8.3	.221/ 8.5	.259/ 8.7	.291/ 9.0	.316/ 9.0	.334/ 9.0	.344/ 9.0	.347/ 9.0		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM BL

SHIP HEADING ANGLE IN DEGREES														
V T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.699/9.8	.077/9.9	.095/9.2	.115/8.7	.132/8.3	.142/7.9	.145/7.9	.141/7.5	.129/7.3	.111/7.1	.091/7.1	.072/7.1	.064/7.3
9	9	.122/11.2	.129/11.2	.146/10.8	.165/10.5	.181/10.5	.191/10.1	.191/9.5	.183/9.2	.168/9.0	.147/8.7	.125/8.5	.107/8.5	.089/8.5
11	11	.157/12.8	.163/12.8	.177/12.6	.195/12.6	.209/12.1	.216/12.1	.218/11.6	.204/11.2	.187/10.5	.165/10.1	.144/10.1	.127/10.1	.121/10.1
13	13	.172/14.0	.178/14.0	.192/14.0	.208/13.7	.221/13.7	.227/13.4	.224/13.4	.213/13.1	.196/12.8	.174/12.6	.153/12.6	.137/12.6	.130/12.1
15	15	.177/15.3	.183/15.3	.197/15.3	.213/15.3	.226/15.3	.232/15.0	.229/15.0	.218/15.0	.200/14.8	.178/14.6	.157/14.6	.141/14.3	.134/15.0
17	17	.175/17.0	.181/17.0	.195/17.0	.212/17.0	.225/17.0	.232/17.0	.229/17.0	.219/16.5	.201/16.5	.179/16.5	.158/16.5	.141/15.0	.135/15.0
19	19	.171/19.0	.177/19.0	.191/19.0	.208/18.5	.223/18.5	.230/18.5	.228/18.5	.218/18.0	.201/18.0	.179/17.5	.157/17.5	.140/17.0	.133/17.0
21	21	.166/19.6	.172/19.6	.187/20.9	.204/20.9	.220/20.9	.228/20.9	.227/20.9	.217/20.3	.200/20.3	.178/20.3	.156/19.6	.139/19.6	.132/19.6
10	7	.691/11.6	.099/11.6	.116/11.6	.134/9.5	.147/9.5	.154/9.5	.152/9.5	.142/9.7	.126/9.5	.105/9.5	.083/9.5	.064/9.5	.056/9.5
9	9	.159/13.7	.165/13.7	.180/13.7	.196/13.7	.210/13.7	.216/13.7	.213/13.7	.203/13.7	.187/9.9	.164/9.5	.141/9.5	.119/10.1	.107/10.1
11	11	.198/14.3	.203/14.3	.216/14.3	.230/14.3	.243/14.3	.249/14.3	.246/14.3	.236/14.3	.216/13.2	.190/13.4	.163/12.8	.139/12.6	.121/12.1
13	13	.212/15.3	.217/15.3	.229/15.3	.242/15.3	.254/15.3	.261/15.3	.258/15.3	.248/15.3	.228/15.0	.207/14.6	.183/14.6	.159/14.3	.141/14.3
15	15	.212/16.5	.217/16.5	.229/16.5	.242/16.5	.254/16.5	.261/16.5	.258/16.5	.248/16.5	.228/16.5	.207/16.5	.183/16.5	.159/16.5	.141/16.5
17	17	.209/18.0	.211/18.0	.223/18.0	.237/18.0	.250/18.0	.257/18.0	.254/18.0	.244/18.0	.224/18.0	.203/18.0	.179/18.0	.155/18.0	.137/18.0
19	19	.197/19.6	.202/19.6	.214/19.6	.228/19.6	.241/19.6	.248/19.6	.245/19.6	.235/19.6	.215/19.6	.194/19.6	.169/19.6	.144/19.6	.126/19.6
21	21	.189/20.9	.194/20.9	.208/20.9	.224/20.9	.239/20.9	.246/20.9	.243/20.9	.233/20.9	.213/20.9	.192/20.9	.167/20.9	.142/20.9	.124/20.9
15	7	.183/14.3	.186/14.3	.192/14.3	.197/14.3	.197/14.3	.191/14.3	.176/14.3	.155/14.3	.139/14.3	.121/14.3	.105/14.3	.087/14.3	.073/14.3
9	9	.229/17.5	.233/17.5	.243/17.5	.253/17.5	.261/17.5	.268/17.5	.265/17.5	.255/17.5	.235/17.5	.214/17.5	.192/17.5	.169/17.5	.147/17.5
11	11	.261/17.5	.264/17.5	.274/17.5	.283/17.5	.291/17.5	.298/17.5	.295/17.5	.285/17.5	.265/17.5	.244/17.5	.222/17.5	.200/17.5	.178/17.5
13	13	.266/17.5	.269/17.5	.279/17.5	.288/17.5	.296/17.5	.303/17.5	.300/17.5	.290/17.5	.270/17.5	.249/17.5	.227/17.5	.205/17.5	.183/17.5
15	15	.267/19.6	.271/19.6	.281/19.6	.290/19.6	.298/19.6	.305/19.6	.302/19.6	.292/19.6	.272/19.6	.251/19.6	.229/19.6	.207/19.6	.185/19.6
17	17	.243/19.6	.247/19.6	.257/19.6	.266/19.6	.274/19.6	.281/19.6	.278/19.6	.268/19.6	.248/19.6	.227/19.6	.205/19.6	.183/19.6	.161/19.6
19	19	.228/19.6	.233/19.6	.243/19.6	.252/19.6	.260/19.6	.267/19.6	.264/19.6	.254/19.6	.234/19.6	.213/19.6	.191/19.6	.169/19.6	.147/19.6
21	21	.215/19.6	.220/19.6	.232/20.9	.246/20.9	.259/20.9	.266/20.9	.263/20.9	.253/20.9	.233/20.9	.212/20.9	.190/20.9	.168/20.9	.146/20.9
20	7	.296/19.0	.296/19.0	.296/19.0	.292/19.0	.286/19.0	.281/19.0	.275/19.0	.269/19.0	.263/19.0	.257/19.0	.251/19.0	.245/19.0	.239/19.0
9	9	.333/19.0	.335/19.0	.339/19.0	.341/19.0	.341/19.0	.336/19.0	.330/19.0	.324/19.0	.318/19.0	.312/19.0	.306/19.0	.300/19.0	.294/19.0
11	11	.345/23.3	.347/23.3	.353/23.3	.356/23.3	.356/23.3	.351/23.3	.345/23.3	.339/23.3	.333/23.3	.327/23.3	.321/23.3	.315/23.3	.309/23.3
13	13	.332/23.3	.335/23.3	.341/23.3	.345/23.3	.345/23.3	.340/23.3	.334/23.3	.328/23.3	.322/23.3	.316/23.3	.310/23.3	.304/23.3	.298/23.3
15	15	.310/23.3	.313/23.3	.321/23.3	.326/23.3	.326/23.3	.321/23.3	.315/23.3	.309/23.3	.303/23.3	.297/23.3	.291/23.3	.285/23.3	.279/23.3
17	17	.286/23.3	.289/23.3	.298/23.3	.306/23.3	.306/23.3	.301/23.3	.295/23.3	.289/23.3	.283/23.3	.277/23.3	.271/23.3	.265/23.3	.259/23.3
19	19	.264/23.3	.268/23.3	.278/23.3	.287/23.3	.287/23.3	.282/23.3	.276/23.3	.270/23.3	.264/23.3	.258/23.3	.252/23.3	.246/23.3	.240/23.3
21	21	.246/23.3	.250/23.3	.261/23.3	.272/23.3	.272/23.3	.267/23.3	.261/23.3	.255/23.3	.249/23.3	.243/23.3	.237/23.3	.231/23.3	.225/23.3
25	7	.352/16.5	.355/16.5	.362/16.5	.365/16.5	.365/16.5	.359/16.5	.353/16.5	.347/16.5	.341/16.5	.335/16.5	.329/16.5	.323/16.5	.317/16.5
9	9	.442/16.5	.444/16.5	.450/16.5	.454/16.5	.454/16.5	.448/16.5	.442/16.5	.436/16.5	.430/16.5	.424/16.5	.418/16.5	.412/16.5	.406/16.5
11	11	.448/24.2	.451/24.2	.457/24.2	.461/24.2	.461/24.2	.455/24.2	.449/24.2	.443/24.2	.437/24.2	.431/24.2	.425/24.2	.419/24.2	.413/24.2
13	13	.420/24.2	.423/24.2	.430/24.2	.435/24.2	.435/24.2	.429/24.2	.423/24.2	.417/24.2	.411/24.2	.405/24.2	.399/24.2	.393/24.2	.387/24.2
15	15	.383/24.2	.386/24.2	.394/24.2	.399/24.2	.399/24.2	.393/24.2	.387/24.2	.381/24.2	.375/24.2	.369/24.2	.363/24.2	.357/24.2	.351/24.2
17	17	.347/24.2	.350/24.2	.358/24.2	.364/24.2	.364/24.2	.358/24.2	.352/24.2	.346/24.2	.340/24.2	.334/24.2	.328/24.2	.322/24.2	.316/24.2
19	19	.316/24.2	.319/24.2	.327/24.2	.333/24.2	.333/24.2	.327/24.2	.321/24.2	.315/24.2	.309/24.2	.303/24.2	.297/24.2	.291/24.2	.285/24.2
21	21	.291/24.2	.294/24.2	.302/24.2	.308/24.2	.308/24.2	.302/24.2	.296/24.2	.290/24.2	.284/24.2	.278/24.2	.272/24.2	.266/24.2	.260/24.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.050/9.2	.057/9.0	.075/8.3	.096/7.9	.114/7.9	.126/7.1	.132/7.0	.130/6.8	.121/6.8	.106/6.8	.087/6.8	.069/6.8	.060/7.0
	9	.074/10.8	.080/10.8	.095/10.5	.113/10.1	.129/9.5	.147/9.2	.145/8.7	.143/8.3	.133/8.1	.119/7.9	.101/7.9	.086/8.1	.080/8.1
	11	.084/12.1	.089/12.1	.101/11.5	.116/11.6	.129/11.2	.147/10.5	.145/10.1	.143/9.8	.129/9.2	.116/9.0	.101/9.0	.089/9.0	.084/9.0
	13	.085/13.1	.089/13.1	.099/13.1	.111/12.8	.121/12.6	.130/12.1	.127/11.6	.127/11.6	.119/10.8	.095/10.1	.085/10.1	.075/10.1	.041/10.1
	15	.080/14.0	.084/14.0	.092/14.0	.103/14.0	.112/13.7	.118/13.7	.119/13.4	.116/13.4	.109/12.8	.088/12.6	.079/12.6	.075/12.6	.075/12.6
	17	.074/15.3	.077/15.3	.085/15.3	.094/15.0	.102/15.0	.107/15.0	.109/15.0	.106/14.5	.094/14.6	.080/14.3	.072/13.4	.069/13.1	.063/13.1
	19	.068/16.1	.071/16.1	.077/16.5	.086/16.5	.093/16.5	.098/16.5	.099/16.1	.096/16.1	.082/15.7	.082/15.3	.073/15.0	.065/14.6	.063/14.6
10	21	.062/17.5	.064/17.5	.071/17.5	.078/17.5	.085/18.0	.090/18.0	.091/18.0	.088/17.5	.082/17.5	.075/17.0	.066/16.5	.057/16.5	.057/16.5
	7	.055/11.6	.063/11.6	.080/9.5	.100/9.5	.117/7.5	.128/7.5	.132/7.3	.129/7.1	.120/7.1	.104/7.0	.084/7.0	.066/7.0	.058/7.1
	9	.082/12.8	.088/12.8	.103/12.8	.120/11.6	.134/11.6	.147/9.8	.147/9.5	.142/8.7	.132/8.1	.116/8.1	.099/8.1	.084/8.1	.077/8.1
	11	.093/14.3	.098/14.0	.109/13.7	.123/13.4	.134/13.4	.147/12.1	.143/11.6	.138/10.7	.128/9.8	.114/9.2	.099/9.0	.086/9.0	.081/9.0
	13	.093/15.3	.096/14.6	.106/14.6	.117/14.3	.127/14.0	.132/13.4	.127/13.1	.127/13.1	.118/11.6	.106/10.8	.093/10.1	.082/10.1	.078/10.1
	15	.087/15.1	.090/15.3	.098/15.3	.108/15.0	.116/14.6	.121/14.3	.121/14.3	.116/13.7	.107/13.4	.096/12.8	.085/12.6	.076/12.1	.072/11.6
	17	.080/16.1	.083/16.1	.090/16.1	.099/15.7	.106/15.7	.110/15.7	.110/15.3	.105/15.0	.098/14.6	.088/14.6	.077/14.3	.069/14.3	.066/13.7
15	19	.072/17.0	.075/17.0	.082/17.0	.090/17.0	.095/17.0	.100/17.0	.100/16.5	.096/16.5	.089/16.5	.080/15.7	.070/15.3	.063/14.6	.060/14.6
	21	.065/18.0	.068/18.0	.074/18.0	.081/18.0	.088/18.0	.091/18.0	.091/18.0	.088/18.0	.081/17.5	.073/17.5	.064/17.0	.057/16.5	.055/16.5
	7	.062/14.3	.070/14.3	.087/14.3	.106/14.3	.121/14.3	.131/11.2	.134/7.9	.129/7.9	.118/7.7	.101/7.3	.081/7.0	.063/7.0	.055/7.0
	9	.092/17.5	.097/17.5	.111/17.5	.128/14.3	.141/14.3	.148/14.3	.149/11.6	.143/8.5	.131/8.3	.114/8.3	.096/8.1	.081/8.1	.075/8.3
	11	.102/17.5	.106/17.5	.117/17.5	.130/14.6	.141/14.6	.146/14.6	.145/11.6	.138/11.6	.127/11.2	.111/9.2	.096/9.0	.084/9.0	.079/9.0
	13	.099/17.5	.103/17.5	.112/17.5	.123/17.5	.132/17.5	.136/14.6	.134/14.6	.128/12.6	.117/12.1	.103/11.2	.090/10.1	.079/10.1	.075/10.1
	15	.092/17.5	.095/17.5	.104/17.5	.113/17.5	.121/17.5	.124/17.5	.122/15.0	.116/14.6	.106/14.3	.094/12.8	.082/12.6	.073/11.6	.070/11.6
20	17	.084/17.5	.087/17.5	.094/17.5	.102/17.5	.109/17.5	.112/17.5	.111/17.5	.105/15.3	.096/15.3	.085/14.6	.075/14.3	.066/14.0	.063/13.4
	19	.075/19.6	.078/19.6	.085/19.6	.092/19.6	.099/19.6	.102/17.5	.101/17.5	.096/17.5	.087/17.0	.078/16.5	.068/15.7	.060/15.0	.057/14.6
	21	.068/19.6	.070/19.6	.077/19.6	.084/19.6	.090/19.6	.093/18.0	.092/18.0	.087/18.0	.080/18.0	.071/17.5	.062/17.0	.055/17.0	.052/16.5
	7	.064/13.4	.075/13.4	.092/13.4	.111/13.4	.125/13.4	.134/13.4	.135/13.4	.129/13.4	.117/13.4	.099/7.0	.079/7.0	.061/6.8	.053/7.0
	9	.097/19.0	.103/19.0	.117/19.0	.133/19.0	.146/13.4	.152/13.4	.151/13.4	.143/13.4	.129/13.4	.111/8.5	.093/8.3	.078/8.3	.072/8.3
	11	.105/19.0	.109/19.0	.121/19.0	.135/19.0	.145/19.0	.149/19.0	.147/19.0	.139/13.4	.125/13.4	.109/9.2	.093/9.2	.081/9.0	.076/9.0
	13	.101/19.0	.105/19.0	.115/19.0	.126/19.0	.135/19.0	.138/19.0	.136/19.0	.128/13.4	.115/13.4	.101/10.8	.087/10.1	.077/10.1	.073/10.1
25	15	.093/23.3	.096/23.3	.105/23.3	.115/23.3	.122/23.3	.125/19.0	.123/19.0	.116/19.0	.105/13.4	.092/13.4	.080/12.6	.070/11.6	.067/11.2
	17	.084/23.3	.087/23.3	.095/23.3	.104/23.3	.110/23.3	.113/19.0	.111/19.0	.105/19.0	.095/15.0	.083/14.6	.072/14.3	.064/14.0	.061/13.1
	19	.075/23.3	.078/23.3	.085/23.3	.093/23.3	.100/23.3	.102/19.0	.101/19.0	.095/19.0	.086/19.0	.076/16.5	.066/16.5	.058/15.0	.055/14.6
	21	.068/23.3	.070/23.3	.077/23.3	.085/23.3	.090/23.3	.093/19.0	.092/19.0	.087/19.0	.079/19.0	.069/18.0	.060/17.5	.053/17.0	.050/17.0
	7	.068/16.5	.077/16.5	.095/16.5	.114/16.5	.128/16.5	.136/16.5	.136/16.5	.129/16.5	.115/16.5	.096/9.5	.075/7.0	.058/7.0	.050/7.0
	9	.093/16.5	.100/16.5	.116/16.5	.134/16.5	.147/16.5	.152/16.5	.153/16.5	.143/16.5	.128/16.5	.109/16.5	.090/8.1	.075/8.3	.069/8.3
	11	.100/16.5	.106/16.5	.119/16.5	.133/16.5	.144/16.5	.149/16.5	.147/16.5	.138/16.5	.124/16.5	.107/16.5	.090/9.5	.078/9.2	.073/9.2
	13	.097/16.5	.101/16.5	.112/16.5	.125/16.5	.134/16.5	.137/16.5	.135/16.5	.127/16.5	.114/16.5	.099/16.5	.084/16.5	.074/10.1	.070/10.1
	15	.089/24.2	.093/24.2	.103/24.2	.114/24.2	.121/24.2	.125/16.5	.122/16.5	.115/16.5	.103/16.5	.090/16.5	.077/16.5	.068/11.6	.064/11.2
	17	.081/24.2	.085/24.2	.093/24.2	.103/24.2	.110/24.2	.116/24.2	.114/24.2	.104/16.5	.093/16.5	.081/16.5	.070/14.6	.062/14.0	.058/13.1
	19	.074/24.2	.077/24.2	.084/24.2	.093/24.2	.100/24.2	.102/16.5	.100/16.5	.094/16.5	.085/16.5	.074/16.5	.063/16.5	.056/15.0	.053/14.6
	21	.067/24.2	.070/24.2	.077/24.2	.084/24.2	.090/24.2	.093/16.5	.091/16.5	.086/16.5	.077/16.5	.068/16.5	.058/17.5	.051/17.0	.048/17.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - J3.0 FT FROM HL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	117/8.7	144/8.3	205/7.7	275/6.7	338/6.5	384/6.5	409/6.5	410/6.5	386/6.5	341/6.5	280/6.5	218/6.7	188/6.7
9	9	147/10.5	166/10.1	213/9.8	269/9.2	321/8.3	360/7.9	381/7.7	383/7.5	363/7.3	326/7.3	278/7.5	231/7.5	210/7.7
11	11	150/11.6	164/11.2	198/10.8	241/10.5	281/9.8	311/9.2	328/8.7	329/8.5	314/8.1	284/8.1	247/8.1	213/8.3	199/8.3
13	13	139/12.1	150/12.1	176/12.1	208/11.8	235/10.8	263/10.1	276/9.5	276/9.2	264/8.7	240/8.7	211/8.7	186/8.7	175/8.7
15	15	124/13.4	132/12.8	152/12.8	178/12.6	203/12.1	222/12.1	232/10.5	231/9.8	221/9.2	202/9.2	178/9.2	159/9.2	150/9.2
17	17	108/13.4	115/13.4	132/13.1	153/13.1	173/12.8	188/12.8	196/12.6	195/12.1	187/10.1	171/9.8	152/9.5	136/9.5	129/9.5
19	19	94/14.0	100/14.0	114/14.0	131/13.7	148/13.7	160/13.4	167/13.1	166/13.1	159/12.8	146/12.6	130/12.6	116/10.1	110/10.1
21	21	82/14.3	88/14.3	99/14.3	114/14.3	128/14.0	138/14.0	144/14.0	143/13.7	137/13.4	125/13.1	112/12.8	100/12.6	95/12.6
10	7	112/9.5	138/9.5	199/7.5	271/7.3	336/7.0	385/7.0	413/7.0	416/6.7	395/6.7	351/6.7	290/6.5	228/6.7	198/6.8
9	9	142/12.8	161/11.6	207/11.6	264/9.8	319/9.5	361/7.7	386/7.5	391/7.5	374/7.5	339/7.5	291/7.5	245/7.7	225/7.7
11	11	146/13.7	159/13.4	193/12.8	236/11.6	279/11.6	312/9.8	332/9.2	336/8.1	323/8.1	296/8.1	260/8.1	227/8.3	213/8.3
13	13	135/14.3	145/14.3	171/13.7	204/13.4	237/12.8	263/11.6	279/9.8	282/9.5	272/8.7	250/8.5	222/8.5	197/8.7	186/8.7
15	15	120/14.6	128/14.6	148/14.3	175/14.0	201/13.4	222/13.1	234/12.1	236/10.1	217/9.5	210/9.2	188/9.0	168/9.0	160/9.0
17	17	105/15.3	111/15.0	128/14.6	150/14.3	171/14.3	188/13.7	198/13.4	199/12.6	177/9.5	177/9.2	159/9.2	143/9.2	136/9.2
19	19	91/15.3	96/15.3	111/15.3	129/15.3	146/14.6	160/14.3	168/13.7	169/13.4	163/12.6	150/10.8	135/10.1	122/10.1	116/9.8
21	21	79/15.7	84/15.7	96/15.3	111/15.3	126/15.3	138/15.0	145/14.6	145/14.3	140/13.7	129/13.1	116/12.2	105/10.1	100/10.1
15	7	106/14.3	132/14.3	193/10.8	266/7.9	333/7.7	385/7.7	415/7.5	420/7.1	400/6.3	357/6.3	298/6.4	235/6.5	205/6.7
9	9	134/14.3	153/14.3	199/14.3	258/11.2	315/11.2	361/8.1	389/7.9	396/7.9	382/7.7	349/7.7	302/7.7	257/7.7	236/7.7
11	11	136/17.5	150/17.5	185/14.5	230/14.5	275/11.6	311/11.6	335/8.3	341/8.3	331/8.3	306/8.3	271/8.3	238/8.3	224/8.3
13	13	126/17.5	136/17.5	163/17.5	198/14.6	231/16.6	262/12.1	281/11.6	286/8.7	278/8.5	258/8.5	231/8.5	207/8.7	196/8.7
15	15	111/17.5	120/17.5	141/17.5	169/15.0	197/15.0	220/14.6	238/14.6	239/11.6	233/9.0	216/9.0	195/9.0	176/9.0	168/9.0
17	17	97/17.5	104/17.5	122/17.5	145/17.5	167/15.0	188/14.6	198/14.6	201/12.1	190/11.6	182/9.2	165/9.2	149/9.2	142/9.2
19	19	84/17.5	90/17.5	105/17.5	124/17.5	143/17.5	159/15.0	166/15.0	171/14.6	166/12.6	155/11.2	140/9.5	127/9.2	121/9.2
21	21	74/17.5	79/17.5	91/17.5	107/17.5	124/17.5	137/17.5	145/15.3	147/15.0	142/14.3	132/12.6	120/10.1	109/10.1	104/9.8
20	7	97/13.4	122/13.4	184/13.4	259/13.4	328/13.4	382/13.4	414/13.4	421/6.3	404/6.3	362/6.3	303/6.3	241/6.7	211/6.7
9	9	119/19.0	138/13.4	187/13.4	248/13.4	308/13.4	357/13.4	389/13.4	400/8.3	388/8.1	357/7.7	311/7.7	266/7.7	246/7.7
11	11	119/19.0	134/19.0	171/19.0	219/13.4	267/13.4	307/13.4	334/13.4	345/8.7	338/8.5	314/8.5	280/8.3	248/8.5	234/8.5
13	13	110/19.0	121/19.0	150/19.0	187/19.0	226/19.0	268/13.4	280/13.4	299/9.0	283/9.0	265/8.7	239/8.7	215/9.0	205/9.0
15	15	97/19.0	106/19.0	130/19.0	160/19.0	190/19.0	215/13.4	234/13.4	251/13.4	237/9.2	222/9.2	202/9.0	183/9.0	175/9.2
17	17	85/19.0	92/19.0	112/19.0	136/19.0	162/19.0	183/19.0	197/13.4	203/13.4	199/13.4	187/9.2	170/9.2	154/9.2	148/9.2
19	19	74/19.0	80/19.0	97/19.0	117/19.0	138/19.0	156/19.0	168/19.0	172/13.4	169/13.4	158/9.5	144/9.2	131/9.2	126/9.2
21	21	65/23.3	70/19.0	84/19.0	102/19.0	119/19.0	134/19.0	144/19.0	148/13.4	144/13.4	135/13.4	123/9.5	112/9.5	104/9.5
25	7	98/16.5	111/16.5	173/16.5	249/16.5	320/16.5	375/16.5	410/9.2	419/6.3	403/6.3	364/6.3	306/6.5	244/6.7	214/6.7
9	9	99/16.5	119/16.5	179/16.5	254/16.5	329/16.5	385/16.5	419/6.3	420/6.3	403/6.3	361/7.3	317/7.5	273/7.5	253/7.7
11	11	98/16.5	114/16.5	154/16.5	204/16.5	256/16.5	300/16.5	331/16.5	345/16.5	341/9.2	320/9.0	287/8.3	255/8.3	242/8.5
13	13	90/16.5	103/16.5	134/16.5	174/16.5	215/16.5	252/16.5	277/16.5	290/16.5	287/9.2	270/9.2	246/9.0	222/9.0	212/9.0
15	15	81/16.5	91/16.5	116/16.5	148/16.5	182/16.5	211/16.5	232/16.5	242/16.5	239/9.5	226/9.5	207/9.5	188/9.2	180/9.2
17	17	71/16.5	80/16.5	100/16.5	127/16.5	154/16.5	178/16.5	195/16.5	203/16.5	201/16.5	190/9.5	174/9.5	159/9.5	153/9.5
19	19	63/16.5	68/16.5	87/16.5	109/16.5	132/16.5	152/16.5	166/16.5	172/16.5	170/16.5	161/10.1	147/9.5	135/9.5	130/9.5
21	21	56/16.5	62/16.5	76/16.5	95/16.5	114/16.5	131/16.5	142/16.5	148/16.5	146/16.5	138/10.1	126/10.1	115/10.1	111/10.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 963														
SHORTCRESTED														
RMS VEH DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
AFT PERPENDICULAR AT MAIN DECK - 33.0 FT FROM BL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	121/9.2	130/9.0	152/9.0	177/8.3	199/7.5	215/7.5	221/7.3	218/7.1	206/7.1	186/7.1	165/7.3	147/7.3	140/7.3
9	9	198/11.6	203/11.6	216/11.6	232/11.2	249/10.8	261/9.5	269/9.0	271/8.5	267/8.5	258/8.5	249/8.5	241/8.5	238/8.5
11	11	256/13.1	258/13.1	262/12.8	268/12.6	275/12.1	282/11.6	287/11.2	292/10.1	294/10.1	295/9.8	296/9.8	296/9.8	296/9.8
13	13	286/14.3	285/14.3	285/14.3	285/14.3	285/14.3	285/14.3	285/14.3	285/14.3	302/11.2	308/11.2	313/11.2	317/11.2	318/11.2
15	15	296/15.7	293/15.7	293/15.7	293/15.7	293/15.7	293/15.7	293/15.7	293/15.7	300/11.7	308/11.7	315/11.7	320/11.7	322/11.7
17	17	296/17.5	295/17.5	295/17.5	295/17.5	295/17.5	295/17.5	295/17.5	295/17.5	294/15.3	302/15.0	310/14.6	315/14.3	317/14.3
19	19	293/19.6	292/19.6	292/19.6	292/19.6	292/19.6	292/19.6	292/19.6	292/19.6	294/15.3	295/17.5	302/17.5	307/16.5	309/16.5
21	21	289/21.7	288/21.7	288/21.7	288/21.7	288/21.7	288/21.7	288/21.7	288/21.7	282/19.6	289/19.6	295/19.6	300/19.6	301/19.6
10	7	101/12.8	110/12.8	131/12.8	155/12.8	176/12.8	190/12.8	197/12.8	195/12.8	184/12.8	167/12.8	148/12.8	132/12.8	126/12.8
9	9	175/14.6	179/14.6	191/14.6	207/14.6	223/14.6	237/14.6	246/14.6	249/14.6	247/14.6	241/14.6	234/14.6	228/14.6	225/14.6
11	11	230/15.3	232/15.3	237/15.3	243/15.3	249/15.3	254/15.3	258/15.3	261/15.3	261/15.3	253/15.3	244/15.3	237/15.3	233/15.3
13	13	260/16.5	260/16.5	261/16.5	261/16.5	261/16.5	261/16.5	261/16.5	261/16.5	261/16.5	261/16.5	261/16.5	261/16.5	261/16.5
15	15	273/18.0	272/18.0	271/18.0	271/18.0	271/18.0	271/18.0	271/18.0	271/18.0	271/18.0	271/18.0	271/18.0	271/18.0	271/18.0
17	17	276/19.6	275/19.6	274/19.6	274/19.6	274/19.6	274/19.6	274/19.6	274/19.6	274/19.6	274/19.6	274/19.6	274/19.6	274/19.6
19	19	275/20.9	274/20.9	273/20.9	273/20.9	273/20.9	273/20.9	273/20.9	273/20.9	273/20.9	273/20.9	273/20.9	273/20.9	273/20.9
21	21	273/23.3	272/23.3	271/23.3	271/23.3	271/23.3	271/23.3	271/23.3	271/23.3	271/23.3	271/23.3	271/23.3	271/23.3	271/23.3
15	7	98/14.3	96/14.3	116/14.3	138/14.3	158/14.3	172/14.3	178/14.3	177/14.3	167/14.3	151/14.3	133/14.3	117/14.3	111/14.3
9	9	156/17.5	160/17.5	172/17.5	188/17.5	204/17.5	217/17.5	224/17.5	230/17.5	229/17.5	223/17.5	216/17.5	210/17.5	204/17.5
11	11	209/20.3	211/20.3	216/20.3	223/20.3	232/20.3	241/20.3	249/20.3	255/20.3	260/20.3	263/20.3	264/20.3	265/20.3	265/20.3
13	13	238/20.3	239/20.3	240/20.3	242/20.3	245/20.3	249/20.3	254/20.3	258/20.3	261/20.3	263/20.3	264/20.3	265/20.3	265/20.3
15	15	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9	257/20.9
17	17	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4	257/22.4
19	19	258/24.4	257/24.4	255/24.4	253/24.4	251/24.4	250/24.4	250/24.4	250/24.4	250/24.4	250/24.4	250/24.4	250/24.4	250/24.4
21	21	258/25.1	257/25.1	255/25.1	253/25.1	251/25.1	250/25.1	250/25.1	250/25.1	250/25.1	250/25.1	250/25.1	250/25.1	250/25.1
20	7	98/13.4	98/13.4	106/13.4	126/13.4	145/13.4	159/13.4	165/13.4	164/13.4	155/13.4	141/13.4	123/13.4	107/13.4	101/13.4
9	9	142/23.3	146/23.3	158/23.3	173/23.3	187/23.3	203/23.3	213/23.3	217/23.3	216/23.3	211/23.3	204/23.3	198/23.3	195/23.3
11	11	191/23.3	193/23.3	198/23.3	206/23.3	215/23.3	225/23.3	235/23.3	242/23.3	247/23.3	250/23.3	251/23.3	251/23.3	251/23.3
13	13	219/25.2	219/25.2	221/25.2	224/25.2	228/25.2	233/25.2	238/25.2	242/25.2	245/25.2	247/25.2	248/25.2	248/25.2	248/25.2
15	15	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2	234/25.2
17	17	240/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2	239/25.2
19	19	242/27.3	242/27.3	241/27.3	241/27.3	241/27.3	241/27.3	241/27.3	241/27.3	241/27.3	241/27.3	241/27.3	241/27.3	241/27.3
21	21	244/27.3	244/27.3	242/27.3	242/27.3	242/27.3	242/27.3	242/27.3	242/27.3	242/27.3	242/27.3	242/27.3	242/27.3	242/27.3
25	7	77/16.5	83/16.5	99/16.5	114/16.5	134/16.5	149/16.5	156/16.5	155/16.5	148/16.5	134/16.5	116/16.5	101/16.5	95/16.5
9	9	133/16.5	137/16.5	147/16.5	162/16.5	178/16.5	192/16.5	204/16.5	210/16.5	210/16.5	206/16.5	199/16.5	193/16.5	190/16.5
11	11	177/16.5	179/16.5	184/16.5	192/16.5	202/16.5	213/16.5	224/16.5	233/16.5	240/16.5	243/16.5	244/16.5	244/16.5	244/16.5
13	13	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5	203/16.5
15	15	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5	217/16.5
17	17	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5
19	19	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5	229/16.5
21	21	231/16.5	230/16.5	229/16.5	228/16.5	228/16.5	228/16.5	228/16.5	228/16.5	228/16.5	228/16.5	228/16.5	228/16.5	228/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
WMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD. T. IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - J3.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.090/9.0	.101/8.7	.125/7.9	.153/7.3	.178/6.5	.197/6.5	.206/6.5	.206/6.7	.196/6.7	.179/6.8	.158/7.0	.140/7.1	.133/7.1	
9	11	.119/11.6	.125/11.2	.142/11.2	.163/10.8	.184/9.0	.202/8.3	.214/7.9	.219/7.9	.217/7.9	.210/7.9	.200/8.1	.192/8.1	.189/8.1	
11	13	.135/12.6	.138/12.6	.147/12.1	.160/12.1	.174/11.6	.188/10.8	.199/9.2	.207/9.0	.211/9.0	.207/9.0	.199/10.1	.200/10.1	.201/10.1	
13	15	.136/13.4	.138/13.4	.143/13.4	.151/13.1	.160/12.6	.170/12.1	.179/11.2	.187/10.1	.193/10.1	.197/9.8	.199/10.1	.185/11.2	.185/11.2	
15	17	.131/14.3	.132/14.3	.135/14.3	.139/14.3	.145/13.7	.152/13.1	.159/12.6	.167/12.1	.173/11.6	.178/11.2	.182/11.2	.164/12.6	.164/12.6	
17	19	.122/15.7	.122/15.7	.124/15.7	.127/15.7	.131/15.0	.136/14.6	.142/14.2	.148/13.4	.155/12.8	.160/12.6	.164/12.6	.157/12.6	.157/12.6	
19	21	.112/17.0	.113/17.0	.114/17.0	.115/16.5	.118/16.5	.122/16.1	.127/15.7	.133/15.0	.138/14.6	.143/14.3	.147/14.0	.150/13.1	.151/12.8	
21	23	.103/18.0	.104/18.0	.106/18.0	.109/18.0	.114/18.0	.119/18.0	.124/17.5	.130/17.0	.135/16.5	.139/16.1	.143/15.0	.147/14.6	.148/14.3	
10	7	.062/12.8	.073/12.8	.098/7.3	.126/7.0	.152/6.5	.172/6.5	.185/6.8	.188/6.8	.182/6.8	.170/7.0	.153/7.1	.138/7.1	.132/7.1	
9	11	.087/15.3	.094/14.3	.111/14.3	.134/12.6	.154/9.5	.180/7.5	.197/7.9	.208/7.9	.212/7.9	.210/8.1	.205/8.1	.200/8.3	.197/8.3	
11	13	.103/15.0	.106/15.0	.117/15.0	.133/14.6	.151/12.8	.170/9.8	.187/9.2	.200/9.0	.210/9.0	.216/9.0	.218/9.0	.219/9.0	.219/9.0	
13	15	.106/15.7	.109/15.7	.116/15.7	.129/15.7	.149/14.6	.169/13.4	.189/11.6	.199/10.1	.203/9.8	.203/9.8	.209/9.8	.212/9.8	.213/9.8	
15	17	.104/17.0	.106/16.5	.110/16.5	.117/16.1	.127/15.7	.139/14.6	.151/13.4	.164/12.6	.175/11.6	.184/11.2	.191/11.2	.195/10.8	.197/10.8	
17	19	.099/18.0	.100/17.5	.103/17.5	.108/17.5	.115/16.5	.123/15.7	.135/15.0	.146/14.6	.156/14.2	.165/12.6	.172/12.6	.176/12.6	.177/12.6	
19	21	.092/19.0	.093/19.0	.095/19.0	.099/18.5	.105/18.0	.113/17.5	.121/16.5	.131/15.3	.140/14.6	.148/14.3	.154/14.3	.158/14.0	.159/14.0	
21	23	.086/20.3	.087/20.3	.089/19.5	.092/19.6	.096/19.6	.103/18.5	.110/18.0	.118/17.0	.126/16.5	.133/16.5	.139/15.3	.142/14.6	.143/14.6	
15	7	.044/14.3	.055/14.3	.079/7.7	.107/7.5	.133/7.3	.155/7.1	.169/7.0	.174/7.0	.171/7.0	.161/7.0	.146/7.1	.132/7.3	.126/7.3	
9	11	.064/17.5	.071/17.5	.089/17.5	.114/11.6	.140/8.1	.165/7.9	.185/7.9	.199/7.9	.207/8.1	.208/8.1	.205/8.1	.201/8.3	.199/8.3	
11	13	.077/18.6	.082/19.6	.094/19.6	.112/17.5	.134/11.6	.159/9.0	.178/9.0	.195/9.0	.209/9.0	.217/9.0	.222/9.0	.224/9.0	.225/9.0	
13	15	.082/20.3	.085/20.3	.094/20.3	.107/20.3	.124/17.5	.143/12.1	.162/11.6	.179/10.1	.194/10.1	.205/10.1	.214/10.1	.218/10.1	.220/10.1	
15	17	.082/20.3	.084/20.3	.090/20.3	.100/20.3	.113/17.5	.124/15.0	.142/14.2	.157/12.6	.176/11.2	.187/11.2	.196/11.2	.201/10.8	.203/10.8	
17	19	.079/20.3	.081/20.3	.085/20.3	.093/20.3	.103/20.3	.116/17.5	.130/15.3	.144/14.3	.157/13.1	.168/12.6	.176/12.6	.182/12.1	.183/12.1	
19	21	.076/20.3	.077/20.3	.080/20.3	.086/20.3	.095/20.3	.105/19.6	.117/17.5	.129/15.7	.141/14.6	.151/14.3	.158/14.3	.163/14.3	.165/14.3	
21	23	.072/22.4	.073/22.4	.075/21.7	.080/21.7	.087/20.9	.096/20.3	.106/19.6	.117/17.5	.127/16.5	.135/16.5	.142/16.1	.147/14.6	.148/14.6	
20	7	.033/13.4	.043/13.4	.067/13.4	.094/13.4	.121/13.4	.144/7.0	.159/7.0	.166/7.0	.165/7.0	.156/7.1	.142/7.1	.128/7.3	.122/7.3	
9	11	.047/19.0	.054/19.0	.073/19.0	.100/13.4	.128/9.3	.156/8.1	.179/7.9	.197/7.9	.207/8.1	.210/8.1	.208/8.1	.205/8.1	.203/8.1	
11	13	.057/23.3	.062/23.3	.076/23.3	.097/14.0	.122/9.0	.148/9.2	.173/9.0	.194/9.0	.210/9.0	.221/9.0	.228/9.0	.231/9.0	.231/9.0	
13	15	.063/23.3	.066/23.3	.076/23.3	.092/23.3	.113/19.0	.135/13.4	.158/10.1	.179/10.1	.197/10.1	.210/10.1	.219/10.1	.225/10.1	.227/10.1	
15	17	.064/26.2	.067/26.2	.074/26.2	.085/23.3	.103/19.0	.122/14.0	.142/13.4	.161/11.6	.178/11.2	.191/11.2	.201/11.2	.207/11.2	.209/11.2	
17	19	.063/26.2	.065/26.2	.071/26.2	.081/26.2	.094/23.3	.110/19.0	.127/14.6	.144/14.3	.159/13.4	.172/12.6	.181/12.6	.187/12.6	.189/12.6	
19	21	.061/26.2	.063/26.2	.068/26.2	.075/26.2	.086/23.3	.100/19.0	.114/19.0	.129/15.7	.142/14.6	.154/14.3	.162/14.3	.168/14.3	.170/14.3	
21	23	.059/27.3	.060/27.3	.064/27.3	.071/26.2	.080/23.3	.091/23.3	.104/19.0	.116/19.0	.128/16.5	.138/16.5	.146/16.5	.151/16.1	.152/16.1	
25	7	.027/16.5	.037/16.5	.059/16.5	.086/16.5	.114/6.7	.137/6.7	.153/7.0	.162/7.0	.162/7.0	.154/7.1	.140/7.3	.127/7.5	.120/7.5	
9	11	.034/16.5	.042/16.5	.063/16.5	.091/16.5	.122/16.5	.153/16.5	.179/7.7	.199/7.9	.212/8.1	.217/8.1	.217/8.3	.214/8.3	.213/8.3	
11	13	.042/16.5	.047/16.5	.063/16.5	.087/16.5	.115/16.5	.145/16.5	.174/8.7	.198/8.7	.218/8.7	.231/8.7	.239/8.7	.243/8.7	.244/8.7	
13	15	.047/33.1	.051/33.1	.063/16.5	.081/16.5	.105/16.5	.132/16.5	.158/10.1	.183/9.8	.203/9.5	.219/9.5	.230/9.5	.237/9.2	.239/9.2	
15	17	.049/33.1	.052/33.1	.061/33.1	.076/16.5	.096/16.5	.118/16.5	.142/12.6	.164/11.6	.184/11.2	.199/11.2	.210/11.2	.217/10.8	.220/10.8	
17	19	.049/33.1	.052/33.1	.059/33.1	.071/24.2	.091/16.5	.106/16.5	.126/16.5	.146/13.7	.163/12.6	.178/12.6	.189/12.6	.195/12.6	.198/12.6	
19	21	.044/33.1	.051/33.1	.057/33.1	.067/33.1	.080/26.2	.096/26.2	.113/16.5	.130/16.5	.146/16.5	.159/14.3	.169/14.3	.175/14.3	.177/14.0	
21	23	.044/33.1	.050/33.1	.055/33.1	.063/33.1	.080/26.2	.096/26.2	.112/16.5	.127/16.5	.143/16.5	.151/16.5	.161/16.5	.171/16.1	.178/16.1	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

00 963

SHUTCHTESTED
 RMS VEL ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
 OF
 (ACC. X 100)
 AFT PERPENDICULAR AT MAIN DECK - 13.0 FT FROM HL

SHIP HEADING ANGLE IN DEGREES															
V	T	0	5	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.223/8.1	.264/7.3	.352/6.3	.451/5.3	.540/5.3	.606/6.3	.661/6.3	.648/6.3	.622/6.3	.570/6.3	.504/6.7	.446/6.8	.422/6.8	
	9	.451/11.2	.267/11.2	.329/9.0	.405/7.5	.479/7.3	.541/7.1	.584/7.1	.603/7.1	.599/7.3	.576/7.5	.542/7.7	.512/7.7	.500/7.7	
	11	.459/12.1	.264/11.6	.284/11.5	.346/11.2	.431/8.7	.451/7.9	.490/7.7	.514/7.9	.522/7.9	.517/8.1	.505/8.3	.493/8.3	.488/8.3	
	13	.421/12.6	.231/12.6	.257/12.5	.292/12.1	.332/11.6	.371/8.7	.403/8.3	.426/8.3	.439/8.5	.443/8.7	.441/8.7	.437/8.7	.436/8.7	
	15	.197/13.4	.204/13.1	.221/13.1	.247/12.8	.276/12.1	.306/11.2	.332/9.0	.353/8.7	.377/8.7	.374/9.0	.376/9.0	.376/9.0	.376/9.2	
	17	.173/14.0	.178/13.7	.191/13.4	.209/13.4	.232/12.8	.255/12.1	.277/9.5	.294/9.0	.307/9.0	.315/9.2	.319/9.2	.321/9.2	.321/9.2	
	19	.152/14.3	.155/14.3	.165/14.3	.174/14.0	.197/13.4	.215/12.6	.233/11.6	.248/9.2	.259/9.2	.267/9.2	.272/9.8	.274/9.8	.275/9.8	
	21	.133/14.6	.136/14.6	.143/14.3	.154/14.3	.168/14.0	.184/13.1	.198/12.1	.211/11.2	.221/9.5	.228/9.8	.233/10.1	.235/10.1	.236/10.1	
10	7	.133/12.8	.176/6.7	.266/6.7	.367/5.7	.452/6.5	.534/6.5	.591/6.5	.613/6.5	.606/6.5	.573/6.7	.524/6.8	.478/6.8	.459/7.0	
	9	.151/12.8	.174/12.8	.243/9.5	.326/7.0	.413/7.0	.493/7.1	.556/7.1	.599/7.3	.619/7.5	.618/7.7	.606/7.7	.587/7.9	.580/7.9	
	11	.154/14.6	.171/14.6	.215/14.5	.277/11.6	.346/7.5	.415/7.7	.475/7.7	.523/7.9	.555/8.1	.572/8.3	.577/8.3	.571/8.3	.576/8.3	
	13	.147/15.3	.158/15.3	.188/15.3	.233/14.6	.286/11.5	.342/8.1	.394/8.3	.439/8.3	.472/8.5	.495/8.7	.508/8.7	.514/8.7	.516/8.7	
	15	.134/16.1	.142/15.7	.163/15.7	.197/15.3	.238/11.3	.283/9.5	.327/8.7	.365/8.7	.396/9.0	.419/9.0	.434/9.0	.444/9.0	.444/9.0	
	17	.120/16.5	.126/16.1	.142/16.1	.168/15.7	.200/15.0	.236/12.8	.272/9.2	.305/9.0	.333/9.0	.354/9.2	.368/9.2	.376/9.2	.379/9.2	
	19	.107/17.0	.111/17.0	.124/16.5	.144/16.1	.170/15.3	.200/14.3	.230/9.5	.257/9.2	.281/9.2	.300/9.2	.313/9.2	.320/9.5	.323/9.8	
	21	.095/17.5	.098/17.5	.108/17.0	.125/17.0	.146/16.1	.171/15.0	.196/12.8	.219/9.2	.240/9.2	.256/9.5	.267/9.8	.274/9.8	.277/9.8	
15	7	.086/14.3	.127/7.5	.214/7.1	.316/7.0	.416/6.7	.501/6.7	.562/6.7	.595/6.7	.599/6.7	.577/6.7	.536/6.8	.494/7.0	.476/7.1	
	9	.097/17.5	.125/17.5	.192/7.7	.282/7.3	.379/7.1	.471/7.1	.550/7.3	.608/7.5	.644/7.5	.657/7.7	.653/7.7	.643/7.9	.639/7.9	
	11	.100/17.5	.118/17.5	.167/17.5	.237/7.9	.318/7.7	.401/7.7	.478/7.9	.542/8.1	.590/8.1	.622/8.3	.639/8.3	.645/8.3	.647/8.5	
	13	.097/20.3	.110/20.3	.145/20.3	.194/20.3	.243/14.1	.293/8.1	.339/8.3	.383/8.7	.427/9.0	.461/9.0	.485/9.0	.499/9.0	.503/9.0	
	15	.091/20.3	.100/20.3	.125/20.3	.166/20.3	.214/12.1	.275/8.5	.331/8.5	.383/8.7	.427/9.0	.461/9.0	.485/9.0	.499/9.0	.503/9.0	
	17	.083/20.3	.090/20.3	.109/20.3	.141/20.3	.183/14.5	.224/8.7	.276/8.7	.321/9.0	.359/9.2	.389/9.2	.411/9.2	.424/9.2	.429/9.2	
	19	.075/20.3	.080/20.3	.096/20.3	.121/20.3	.155/17.5	.194/12.5	.233/8.7	.270/9.0	.303/9.2	.330/9.2	.349/9.5	.361/9.8	.365/9.8	
	21	.068/20.3	.072/20.3	.085/20.3	.105/20.3	.133/20.3	.165/15.0	.199/9.2	.230/9.2	.259/9.2	.282/9.8	.299/9.8	.309/9.8	.312/9.8	
20	7	.050/13.4	.099/13.4	.184/8.1	.264/6.3	.343/6.3	.445/6.5	.534/6.5	.595/6.7	.606/6.7	.589/6.8	.552/7.0	.512/7.1	.494/7.3	
	9	.064/13.4	.093/13.4	.163/8.3	.260/7.9	.338/7.0	.443/7.1	.538/7.1	.608/7.5	.645/7.5	.678/7.7	.712/7.7	.706/7.9	.703/7.9	
	11	.066/19.0	.085/19.0	.139/13.4	.217/6.3	.310/7.7	.401/7.7	.498/7.7	.577/8.3	.639/8.1	.682/8.1	.708/8.3	.720/8.3	.723/8.3	
	13	.064/23.3	.074/23.3	.118/19.0	.174/8.7	.255/8.1	.337/8.1	.418/8.1	.491/8.5	.552/8.5	.599/8.5	.631/8.7	.649/8.7	.655/8.7	
	15	.061/23.3	.071/23.3	.102/23.3	.150/13.4	.211/8.5	.274/8.5	.347/8.3	.410/8.5	.466/8.7	.509/9.0	.540/9.0	.559/9.0	.565/9.0	
	17	.057/26.2	.065/26.2	.088/23.3	.127/19.0	.176/13.4	.232/8.5	.289/8.7	.343/9.0	.391/9.0	.430/9.2	.459/9.2	.475/9.2	.481/9.2	
	19	.053/26.2	.059/26.2	.077/26.2	.104/19.0	.149/14.0	.195/8.7	.243/9.0	.289/9.0	.330/9.2	.364/9.2	.389/9.2	.404/9.5	.409/9.8	
	21	.047/26.2	.053/26.2	.068/26.2	.094/23.3	.124/19.0	.166/13.4	.207/9.0	.246/9.2	.291/9.2	.311/9.5	.332/9.5	.345/9.8	.350/9.8	
25	7	.053/16.5	.092/9.0	.171/6.3	.271/5.3	.366/5.5	.483/5.5	.558/6.7	.605/6.7	.621/6.8	.608/7.0	.573/7.1	.533/7.3	.515/7.3	
	9	.053/16.5	.078/16.5	.150/16.5	.254/7.0	.337/7.0	.442/7.1	.538/7.5	.604/7.7	.645/7.7	.676/7.9	.708/7.9	.717/8.1	.723/8.1	
	11	.048/16.5	.068/16.5	.125/16.5	.211/7.0	.316/7.1	.428/7.1	.525/7.7	.603/7.9	.677/8.1	.753/8.3	.799/8.3	.818/8.3	.823/8.3	
	13	.045/16.5	.060/16.5	.104/16.5	.173/16.5	.260/7.7	.355/7.7	.450/8.1	.538/8.3	.614/8.5	.673/8.5	.714/8.5	.739/8.5	.747/8.5	
	15	.043/16.5	.054/16.5	.094/16.5	.143/16.5	.214/7.7	.293/7.9	.374/8.1	.450/8.3	.518/8.5	.572/8.5	.612/8.7	.636/8.7	.644/8.7	
	17	.040/33.1	.049/28.2	.076/16.5	.120/16.5	.178/7.7	.243/7.9	.317/8.3	.376/8.3	.483/8.7	.548/8.7	.518/8.7	.540/8.7	.547/8.7	
	19	.038/33.1	.045/33.1	.066/16.5	.102/16.5	.150/16.5	.204/7.9	.261/8.3	.317/8.5	.366/8.7	.409/8.7	.439/8.7	.458/8.7	.465/8.7	
	21	.036/33.1	.041/33.1	.058/33.1	.088/16.5	.124/16.5	.173/8.1	.222/8.3	.269/8.5	.312/8.7	.347/8.7	.374/8.7	.391/8.7	.397/8.7	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS BUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT DISP IN FEET/COUNTDOWNED MUDAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK RULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.073/10.5	.081/9.8	.099/9.5	.114/9.2	.135/8.7	.146/8.3	.148/8.3	.142/7.9	.129/7.9	.110/7.7	.087/7.5	.067/7.5	.058/7.7
	9	.120/10.8	.129/10.8	.151/10.8	.176/10.5	.198/10.5	.213/10.5	.217/10.1	.211/10.1	.196/10.1	.172/9.8	.145/9.8	.122/9.5	.112/9.5
	11	.123/11.2	.132/11.2	.154/10.8	.182/10.8	.208/10.8	.227/10.8	.237/10.5	.236/10.5	.225/10.5	.204/10.5	.180/10.5	.158/10.5	.149/10.5
	13	.115/11.2	.124/11.2	.145/10.8	.171/10.8	.197/10.8	.217/10.8	.228/10.8	.230/10.8	.221/10.8	.202/10.8	.181/10.8	.162/11.2	.154/11.2
	15	.113/11.2	.121/11.2	.141/11.2	.165/10.8	.189/10.8	.207/10.8	.217/10.8	.218/10.8	.209/10.8	.192/10.8	.171/11.2	.153/11.2	.145/11.2
	17	.115/19.0	.122/19.0	.140/18.5	.163/18.5	.185/18.5	.201/18.0	.209/18.0	.208/18.0	.198/18.0	.181/11.2	.161/11.2	.143/11.2	.135/11.2
	19	.117/19.6	.124/19.6	.142/19.5	.164/19.5	.185/19.5	.199/19.5	.206/19.5	.203/19.6	.192/19.6	.174/19.6	.153/11.2	.135/11.2	.124/11.2
	21	.119/21.7	.126/21.7	.144/21.7	.166/21.7	.186/20.9	.199/20.9	.205/20.9	.201/20.9	.189/20.3	.170/20.3	.149/20.3	.131/19.6	.123/19.6
	10	7	.116/11.6	.121/11.6	.132/11.6	.145/11.6	.155/11.6	.158/10.1	.154/10.1	.141/7.9	.123/7.9	.101/7.7	.078/7.7	.057/7.5
9		.123/11.6	.131/11.6	.150/11.6	.172/11.6	.190/10.5	.200/10.1	.200/10.1	.191/10.1	.173/10.1	.149/9.8	.122/9.5	.098/9.2	.090/9.2
11		.115/11.6	.123/11.6	.143/11.6	.168/11.6	.190/10.5	.205/10.5	.212/10.5	.208/10.5	.196/10.5	.175/10.8	.151/10.8	.130/11.2	.121/11.2
13		.114/11.6	.121/11.6	.139/11.6	.163/11.6	.184/11.6	.201/10.8	.209/10.8	.208/10.8	.198/11.2	.181/11.2	.159/11.2	.141/11.6	.133/11.6
15		.119/18.5	.125/18.5	.142/18.0	.164/17.5	.184/17.5	.198/17.5	.205/11.2	.203/11.2	.193/11.2	.176/11.6	.156/11.6	.139/11.6	.132/11.6
17		.123/19.6	.130/19.6	.146/19.6	.167/19.0	.185/19.0	.198/18.5	.203/18.0	.199/18.0	.188/17.5	.170/11.6	.150/11.6	.133/12.1	.126/12.1
19		.127/20.9	.133/20.9	.150/20.9	.170/20.9	.187/20.9	.194/20.3	.202/20.3	.197/19.6	.184/19.6	.165/19.6	.145/19.6	.127/12.1	.120/12.1
21		.129/22.4	.136/22.4	.153/22.4	.173/21.7	.190/21.7	.201/20.9	.203/20.9	.197/20.9	.183/20.9	.163/20.3	.142/20.3	.124/20.3	.116/19.6
15		7	.110/14.3	.116/14.3	.129/14.3	.142/14.3	.152/14.3	.154/10.8	.149/8.5	.137/8.5	.118/8.3	.094/8.1	.070/7.9	.050/7.7
	9	.116/17.5	.123/17.5	.140/17.5	.159/17.5	.175/17.5	.183/10.8	.182/10.1	.173/10.1	.155/10.1	.132/9.5	.106/9.2	.084/9.2	.074/9.2
	11	.123/17.5	.129/17.5	.145/17.5	.164/17.5	.181/17.5	.192/11.2	.194/11.2	.186/10.8	.174/10.8	.154/10.8	.130/10.8	.110/10.8	.101/11.2
	13	.132/19.6	.137/19.6	.151/19.6	.164/19.6	.174/19.6	.184/17.5	.198/17.5	.193/11.2	.181/11.6	.162/11.6	.141/12.1	.123/12.1	.115/12.1
	15	.139/19.6	.144/19.6	.157/19.6	.164/19.6	.174/19.6	.184/17.5	.201/17.5	.195/17.5	.182/12.1	.163/12.1	.142/12.6	.125/12.6	.117/12.6
	17	.143/20.3	.148/20.3	.162/20.3	.174/20.3	.184/20.3	.194/20.3	.202/19.0	.195/18.0	.180/18.0	.160/17.5	.139/12.8	.121/12.8	.114/12.8
	19	.144/22.4	.150/22.4	.164/22.4	.176/22.4	.186/20.9	.194/20.9	.203/20.3	.195/20.3	.179/20.3	.158/19.6	.136/19.6	.118/19.6	.111/12.8
	21	.146/24.2	.152/23.3	.166/23.3	.184/22.4	.194/22.4	.205/22.4	.205/20.9	.196/20.9	.179/20.9	.157/20.3	.135/20.3	.116/20.3	.109/20.3
	20	7	.171/19.0	.173/19.0	.178/13.4	.182/13.4	.183/13.4	.177/13.4	.162/13.4	.141/13.4	.117/13.4	.091/8.7	.066/8.3	.044/7.5
9		.174/19.0	.177/19.0	.184/19.0	.192/19.0	.197/19.0	.196/19.0	.186/19.0	.170/9.8	.148/9.8	.123/9.5	.097/9.5	.075/9.2	.065/9.2
11		.177/23.3	.180/23.3	.187/23.3	.196/23.3	.204/23.3	.205/19.0	.198/19.0	.185/10.5	.166/10.5	.143/10.5	.119/10.8	.098/10.8	.089/11.2
13		.178/23.3	.181/23.3	.189/23.3	.199/23.3	.208/23.3	.210/19.0	.205/19.0	.192/19.0	.174/11.6	.151/12.1	.131/12.1	.111/12.6	.104/12.6
15		.178/23.3	.181/23.3	.191/23.3	.202/23.3	.211/23.3	.214/19.0	.208/19.0	.196/19.0	.178/13.4	.156/13.4	.134/13.1	.116/13.1	.108/13.1
17		.176/23.3	.180/23.3	.190/23.3	.203/23.3	.212/23.3	.215/23.3	.210/19.0	.196/19.0	.177/19.0	.155/17.5	.133/14.3	.114/14.3	.107/14.3
19		.173/23.3	.177/23.3	.184/23.3	.202/23.3	.213/23.3	.216/23.3	.210/19.0	.197/20.3	.177/20.3	.154/19.6	.131/19.6	.112/14.3	.105/14.3
21		.171/26.2	.176/26.2	.188/23.3	.203/23.3	.213/23.3	.217/23.3	.211/23.3	.198/21.7	.177/20.9	.154/20.9	.130/20.3	.111/20.3	.103/20.3
25		7	.223/22.4	.226/22.4	.235/22.4	.245/22.4	.253/22.4	.251/16.5	.241/16.5	.221/16.5	.197/16.5	.163/9.8	.126/9.5	.089/9.5
	9	.266/37.0	.266/37.0	.276/24.2	.286/24.2	.294/24.2	.294/16.5	.285/16.5	.265/16.5	.239/16.5	.197/9.8	.150/16.5	.089/9.5	.057/9.2
	11	.270/29.9	.270/29.9	.280/24.2	.289/24.2	.297/24.2	.297/24.2	.288/24.2	.268/24.2	.241/16.5	.195/10.8	.149/10.8	.088/10.8	.040/11.2
	13	.261/29.9	.261/29.9	.271/24.2	.280/24.2	.288/24.2	.288/24.2	.279/24.2	.259/24.2	.232/16.5	.182/12.1	.136/12.1	.084/12.8	.042/12.8
	15	.248/29.9	.248/29.9	.258/24.2	.267/24.2	.275/24.2	.275/24.2	.266/24.2	.246/24.2	.219/16.5	.169/14.3	.123/14.3	.081/14.3	.040/14.3
	17	.236/29.9	.236/29.9	.246/24.2	.255/24.2	.263/24.2	.263/24.2	.254/24.2	.234/24.2	.207/18.0	.151/17.5	.105/14.6	.058/14.6	.010/14.6
	19	.224/29.9	.224/29.9	.234/24.2	.243/24.2	.251/24.2	.251/24.2	.242/24.2	.222/24.2	.195/20.3	.149/20.3	.103/20.3	.057/20.3	.010/20.3
	21	.214/29.9	.214/29.9	.224/24.2	.233/24.2	.241/24.2	.241/24.2	.232/24.2	.212/24.2	.185/20.9	.139/20.9	.093/20.9	.047/20.9	.010/20.9

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

SHOOTING
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK RULLSSVE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	51/9.8	059/9.2	076/9.0	096/8.3	112/7.9	126/7.4	128/7.5	125/7.3	116/7.1	100/7.1	080/7.1	061/7.1	052/7.3
9	7	75/10.8	082/10.0	100/10.5	121/10.5	139/10.5	153/10.1	158/9.8	156/9.5	145/9.2	129/9.0	109/9.0	090/9.0	082/9.0
11	7	76/11.2	086/10.8	096/10.5	112/10.5	125/10.5	137/10.5	142/10.5	158/10.5	151/10.5	137/10.5	120/10.5	104/10.5	094/10.5
13	7	76/11.2	086/10.8	096/10.5	112/10.5	125/10.5	137/10.5	142/10.5	158/10.5	151/10.5	137/10.5	120/10.5	104/10.5	094/10.5
15	7	57/11.2	062/11.2	074/10.5	089/10.8	104/10.8	116/10.8	124/10.8	126/10.8	122/10.8	113/10.8	101/10.8	090/10.8	086/11.2
17	7	57/11.2	062/11.2	074/10.5	089/10.8	104/10.8	116/10.8	124/10.8	126/10.8	122/10.8	113/10.8	101/10.8	090/10.8	086/11.2
19	7	47/11.2	051/11.2	058/10.8	071/10.8	082/10.8	091/10.8	096/10.8	097/10.8	094/10.8	087/10.8	077/10.8	069/11.2	066/11.2
21	7	44/11.2	047/11.2	055/10.8	065/10.8	075/10.8	083/10.8	087/10.8	087/10.8	084/10.8	077/10.8	069/11.2	061/11.2	058/11.2
10	7	68/11.5	074/11.5	089/11.5	104/11.5	117/11.0	126/7.9	128/7.7	123/7.7	111/7.5	095/7.3	075/7.3	056/7.1	047/7.3
9	7	70/11.5	077/11.5	094/11.5	114/11.5	131/11.0	143/11.0	147/11.0	144/9.8	134/9.2	118/9.0	098/9.0	080/8.7	073/8.7
11	7	62/11.5	069/11.5	084/11.5	104/11.5	122/11.0	135/11.5	143/11.5	143/10.5	136/10.5	127/10.5	107/10.5	092/11.2	086/10.5
13	7	52/11.5	058/11.5	074/11.5	094/11.5	108/11.5	121/11.5	129/11.5	131/10.8	121/10.8	114/10.8	104/11.2	092/11.2	087/11.2
15	7	50/11.5	055/11.5	071/11.5	091/11.5	106/11.5	117/11.5	125/11.5	117/10.8	111/11.2	105/11.2	094/11.2	085/11.6	080/11.6
17	7	47/11.5	051/11.5	067/11.5	087/11.5	103/11.5	114/11.5	121/11.5	104/11.2	101/11.2	095/11.2	084/11.6	075/11.6	072/11.6
19	7	44/11.5	048/11.5	064/11.5	084/11.5	100/11.5	111/11.5	118/11.5	099/11.6	096/11.6	088/12.1	080/12.6	071/12.6	064/12.6
21	7	42/11.5	045/11.5	061/11.5	081/11.5	97/11.5	107/11.5	114/11.5	098/12.1	095/12.1	087/12.6	079/12.6	071/12.6	064/12.6
15	7	45/14.3	058/14.3	072/14.3	091/14.3	107/14.3	117/8.3	120/8.1	117/7.9	106/7.9	090/7.5	071/7.3	052/7.3	043/7.3
9	7	50/17.5	059/17.5	077/17.5	096/17.5	115/17.0	128/17.0	134/17.0	132/9.0	124/9.0	109/8.7	090/8.5	073/8.5	066/8.5
11	7	50/17.5	059/17.5	077/17.5	096/17.5	115/17.0	128/17.0	134/17.0	132/9.0	124/9.0	109/8.7	090/8.5	073/8.5	066/8.5
13	7	50/17.5	059/17.5	077/17.5	096/17.5	115/17.0	128/17.0	134/17.0	132/9.0	124/9.0	109/8.7	090/8.5	073/8.5	066/8.5
15	7	48/19.6	053/19.6	067/19.6	083/19.6	099/19.6	110/11.2	118/11.2	110/11.2	106/11.2	098/11.6	089/12.1	079/12.1	075/12.6
17	7	47/19.6	050/19.6	065/19.6	081/19.6	097/19.6	107/11.5	115/11.5	099/11.6	096/11.6	088/12.1	080/12.6	071/12.6	064/12.6
19	7	45/20.3	048/20.3	063/20.3	083/20.3	099/20.3	107/12.1	115/12.1	098/12.1	095/12.1	087/12.6	079/12.6	071/12.6	064/12.6
21	7	42/20.3	045/20.3	061/20.3	081/20.3	097/20.3	107/12.1	115/12.1	098/12.1	095/12.1	087/12.6	079/12.6	071/12.6	064/12.6
20	7	41/13.4	050/13.4	068/13.4	087/13.4	102/13.4	113/9.0	116/8.7	113/8.7	103/8.5	087/7.0	068/7.0	049/7.1	041/7.3
9	7	48/19.6	056/19.6	073/19.6	092/19.6	109/19.6	122/9.5	125/9.1	126/9.2	118/9.2	104/9.0	085/8.7	069/8.7	062/8.7
11	7	52/19.6	057/19.6	074/19.6	093/19.6	110/19.6	117/10.1	125/10.1	125/10.1	119/10.1	108/10.1	093/10.1	079/10.1	073/10.1
13	7	51/23.3	055/23.3	069/23.3	083/23.3	097/19.0	109/19.0	116/10.5	119/10.5	114/10.5	104/10.8	092/11.2	080/11.6	075/11.6
15	7	51/23.3	055/23.3	069/23.3	083/23.3	097/19.0	109/19.0	116/10.5	119/10.5	114/10.5	104/10.8	092/11.2	080/11.6	075/11.6
17	7	49/23.3	053/23.3	067/23.3	081/23.3	095/19.0	107/19.0	114/10.5	098/13.4	094/13.4	087/12.8	079/12.8	070/12.8	066/13.1
19	7	47/23.3	050/23.3	065/23.3	081/23.3	095/23.3	107/23.3	114/19.0	089/19.0	085/19.0	079/13.1	070/13.1	060/13.1	056/13.1
21	7	44/23.3	047/23.3	063/23.3	083/23.3	097/23.3	107/23.3	114/19.0	089/19.0	085/19.0	079/13.1	070/13.1	060/13.1	056/13.1
25	7	42/16.5	050/16.5	068/16.5	087/16.5	102/16.5	113/9.5	116/9.5	113/9.5	103/9.5	087/9.5	068/9.5	049/9.5	041/9.5
9	7	51/16.5	054/16.5	072/16.5	091/16.5	108/16.5	121/9.5	124/9.5	122/9.5	114/9.5	100/9.5	082/9.0	066/8.7	058/8.7
11	7	50/24.2	061/24.2	077/24.2	094/16.5	110/16.5	121/10.1	125/10.1	125/10.1	119/10.1	108/10.1	093/10.1	079/10.1	073/10.1
13	7	57/24.2	068/24.2	083/24.2	100/16.5	116/16.5	124/10.5	129/10.5	129/10.5	124/10.5	114/10.8	098/11.2	084/11.6	079/11.6
15	7	56/24.2	067/24.2	082/24.2	099/16.5	115/16.5	123/10.5	128/10.5	128/10.5	123/10.5	114/10.8	098/11.2	084/11.6	079/11.6
17	7	54/24.2	065/24.2	080/24.2	097/16.5	113/16.5	121/10.5	126/10.5	126/10.5	121/10.5	112/10.8	096/11.2	082/11.6	077/11.6
19	7	51/24.2	062/24.2	077/24.2	094/16.5	110/16.5	118/10.5	123/10.5	123/10.5	118/10.5	109/11.2	093/11.2	080/11.6	074/11.6
21	7	48/29.9	059/29.9	074/29.9	091/24.2	107/24.2	118/19.0	124/19.0	124/19.0	118/19.0	109/14.3	093/14.3	080/14.3	074/14.3
25	7	46/29.9	057/29.9	072/29.9	089/24.2	105/24.2	116/19.0	122/19.0	122/19.0	116/19.0	107/14.3	091/14.3	078/14.3	072/14.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 963

SHURTCRESTED

RMS LAT ACC IN GTS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

(ACC. X 100)

HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.116/9.2	.142/9.0	.199/7.9	.263/7.7	.319/6.7	.358/6.7	.377/6.7	.374/6.7	.348/6.7	.303/6.7	.244/6.7	.184/6.8	.155/6.8	
	9	.150/10.8	.171/10.8	.221/10.5	.279/10.1	.332/9.5	.371/9.2	.391/8.7	.389/8.3	.367/8.3	.326/8.1	.273/8.1	.223/8.3	.201/8.3	
	11	.140/10.8	.158/10.8	.199/10.8	.249/10.5	.297/10.5	.333/10.1	.354/10.1	.357/10.1	.341/10.1	.310/10.1	.268/10.1	.230/10.1	.213/10.1	
	13	.119/10.8	.132/10.8	.166/10.8	.208/10.8	.248/10.5	.284/10.5	.300/10.5	.305/10.5	.294/10.5	.270/10.5	.238/10.5	.209/10.5	.194/10.8	
	15	.099/10.8	.110/10.8	.137/10.8	.171/10.8	.205/10.5	.232/10.5	.248/10.5	.254/10.5	.247/10.5	.224/10.5	.203/10.5	.179/10.5	.165/10.8	
	17	.083/10.8	.092/10.8	.115/10.8	.143/10.8	.170/10.8	.193/10.5	.207/10.5	.212/10.5	.206/10.5	.191/10.5	.170/10.8	.151/10.8	.137/10.8	
	19	.071/10.8	.079/10.8	.097/10.8	.121/10.8	.144/10.8	.162/10.5	.174/10.5	.173/10.5	.173/10.5	.161/10.8	.144/10.8	.124/10.8	.110/10.8	
	21	.062/10.8	.068/10.8	.084/10.8	.103/10.8	.123/10.8	.149/10.8	.169/10.5	.152/10.5	.147/10.5	.137/10.8	.122/10.8	.109/10.8	.103/10.8	
	10	7	.130/11.6	.152/11.6	.203/11.6	.264/7.7	.318/7.7	.356/7.1	.375/7.0	.371/7.0	.346/7.0	.302/7.0	.244/7.0	.184/7.0	.155/7.1
		9	.130/11.6	.151/11.6	.200/10.1	.259/10.1	.312/10.1	.352/9.8	.375/8.1	.376/8.1	.356/7.9	.319/7.9	.268/7.9	.219/8.1	.177/8.1
11		.110/11.6	.128/11.6	.170/10.1	.221/10.1	.270/10.1	.308/10.1	.332/10.1	.339/10.1	.327/9.8	.298/9.5	.259/9.2	.222/9.2	.206/9.2	
13		.091/11.6	.105/11.6	.140/10.5	.182/10.5	.224/10.5	.258/10.5	.281/10.5	.284/10.5	.282/10.5	.261/10.5	.232/10.5	.204/10.8	.182/10.8	
15		.077/11.6	.088/11.6	.116/10.5	.151/10.5	.185/10.5	.214/10.5	.234/10.5	.238/10.5	.238/10.5	.222/10.8	.199/10.8	.177/11.2	.161/11.2	
17		.066/11.6	.075/11.6	.094/10.5	.126/10.5	.155/10.5	.174/10.5	.196/10.5	.203/10.8	.200/10.8	.187/10.8	.169/11.2	.151/11.2	.134/11.2	
19		.058/11.6	.065/11.6	.084/10.5	.107/10.5	.131/10.5	.152/10.5	.166/10.5	.172/10.8	.169/10.8	.159/11.2	.143/11.2	.129/11.2	.123/11.2	
21		.051/11.6	.057/11.6	.073/10.5	.093/10.5	.111/10.5	.130/10.5	.142/10.8	.147/10.8	.144/10.8	.135/11.2	.123/11.2	.110/11.2	.105/11.6	
15		7	.084/10.8	.112/10.8	.173/8.1	.239/7.9	.297/7.9	.339/7.7	.362/7.5	.362/7.5	.340/7.0	.298/7.0	.242/6.8	.183/6.8	.156/7.0
		9	.084/11.2	.109/11.2	.164/10.1	.226/8.7	.283/8.5	.327/8.5	.354/8.3	.360/8.3	.345/8.1	.311/8.1	.264/8.1	.217/8.1	.195/8.1
	11	.075/11.2	.095/11.2	.140/10.8	.192/10.1	.243/10.1	.285/9.2	.312/9.2	.322/9.0	.314/9.0	.289/9.0	.253/9.0	.218/9.0	.202/9.0	
	13	.067/11.2	.082/11.2	.117/10.5	.160/10.1	.203/10.1	.240/10.1	.265/10.1	.276/10.1	.272/10.1	.254/10.1	.226/10.1	.200/10.1	.184/10.1	
	15	.060/11.2	.071/11.2	.099/11.2	.134/10.8	.170/10.8	.201/10.8	.222/10.8	.233/10.5	.231/10.5	.217/10.8	.196/10.8	.175/11.2	.161/11.2	
	17	.054/11.2	.063/11.2	.085/11.2	.114/10.8	.143/10.8	.169/10.8	.187/10.8	.196/10.8	.195/10.8	.184/11.2	.167/11.2	.151/11.2	.134/11.2	
	19	.048/11.2	.056/11.2	.074/11.2	.098/11.2	.122/10.8	.144/10.8	.159/10.8	.167/10.8	.166/11.2	.157/11.2	.143/11.2	.129/12.1	.123/12.6	
	21	.043/11.2	.050/11.2	.065/11.2	.085/11.2	.106/10.8	.124/10.8	.137/10.8	.143/11.2	.142/11.2	.134/11.2	.122/12.1	.111/12.6	.106/12.6	
	20	7	.066/13.4	.097/13.4	.160/8.7	.227/8.7	.287/8.7	.331/8.5	.355/7.0	.358/7.0	.338/6.5	.298/6.7	.243/6.7	.185/6.8	.156/6.8
		9	.066/19.0	.093/19.0	.148/9.2	.211/9.2	.270/9.0	.317/9.0	.347/8.7	.356/8.5	.344/8.3	.312/8.3	.267/8.1	.220/8.1	.199/8.3
25	7	.059/16.5	.085/16.5	.139/9.8	.202/9.8	.262/9.5	.310/9.5	.340/9.5	.351/9.2	.341/7.9	.311/7.9	.267/7.9	.222/8.1	.200/8.1	
	9	.056/16.5	.075/16.5	.119/9.8	.173/9.8	.226/9.8	.271/9.8	.302/9.5	.316/9.5	.312/9.5	.290/9.2	.257/9.2	.223/9.0	.207/9.2	
	11	.053/24.2	.067/24.2	.102/16.5	.146/10.1	.191/10.1	.230/10.1	.259/10.1	.273/10.1	.272/9.8	.251/9.8	.220/10.5	.205/10.1	.194/10.1	
	13	.049/24.2	.060/24.2	.088/24.2	.124/10.5	.164/10.5	.195/10.5	.220/10.5	.233/10.5	.233/10.5	.221/10.8	.202/10.8	.182/10.8	.173/10.8	
	15	.045/24.2	.054/24.2	.076/24.2	.106/16.5	.137/10.5	.155/10.5	.186/10.5	.198/10.5	.199/10.8	.189/11.2	.174/11.2	.151/12.6	.137/12.6	
	17	.041/24.2	.049/24.2	.067/24.2	.092/24.2	.118/10.5	.141/10.5	.159/10.5	.169/10.8	.170/11.2	.152/11.2	.149/12.1	.136/12.8	.131/13.1	
	19	.038/24.2	.044/24.2	.059/24.2	.080/24.2	.102/24.2	.122/10.5	.137/10.5	.145/11.2	.146/12.1	.140/12.1	.129/13.1	.118/13.1	.113/13.4	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.058/.9.2	.066/.9.2	.086/.8.5	.104/.7.9	.126/.7.9	.137/.7.5	.141/.7.5	.138/.7.3	.127/.7.3	.110/.7.3	.089/.7.3	.070/.7.5	.062/.7.5	
	9	.105/12.1	.107/12.1	.124/11.6	.144/10.8	.162/10.1	.174/9.5	.178/9.2	.175/9.2	.163/9.0	.146/9.0	.127/9.0	.111/9.0	.104/9.0	
	11	.142/13.4	.147/13.4	.159/13.1	.175/12.8	.190/12.5	.200/12.1	.203/11.6	.200/11.2	.191/11.2	.177/11.2	.162/10.8	.150/11.2	.145/11.2	
	13	.174/15.3	.178/15.3	.187/15.0	.198/14.6	.209/14.0	.217/13.7	.220/13.4	.218/13.4	.210/12.8	.200/12.6	.189/12.6	.180/12.6	.177/12.6	
	15	.197/17.0	.200/17.0	.206/16.5	.215/16.1	.223/15.7	.229/15.3	.231/15.0	.229/14.6	.224/14.6	.216/14.3	.208/14.3	.202/14.3	.200/14.3	
	17	.212/19.0	.214/19.0	.218/18.5	.225/18.0	.231/17.5	.235/17.5	.237/17.0	.236/16.5	.232/16.5	.226/16.5	.220/16.5	.216/16.5	.214/16.5	
	19	.222/19.6	.223/19.6	.227/19.5	.232/19.4	.236/19.0	.240/19.0	.241/18.0	.240/18.5	.237/18.0	.233/18.0	.229/17.5	.225/17.0	.224/17.0	
10	21	.230/22.4	.231/22.4	.234/22.4	.237/22.1	.241/21.7	.244/20.9	.244/20.3	.244/20.3	.242/20.3	.239/19.6	.235/19.6	.231/19.6	.232/19.6	
	7	.049/12.8	.059/12.8	.079/12.8	.101/7.9	.119/7.7	.132/7.5	.137/7.5	.134/7.3	.123/7.3	.107/7.0	.086/7.0	.066/6.3	.057/6.3	
	9	.090/14.6	.097/14.6	.115/14.3	.136/12.8	.154/10.1	.167/9.8	.172/9.5	.169/9.2	.158/9.2	.141/9.2	.121/9.2	.103/9.2	.096/9.2	
	11	.132/16.1	.137/15.7	.150/15.7	.166/15.3	.182/13.4	.192/12.6	.197/12.1	.194/11.6	.185/11.2	.170/11.2	.155/11.2	.141/11.2	.136/11.2	
	13	.164/17.0	.168/17.0	.177/17.0	.189/16.5	.201/15.7	.210/14.6	.213/14.0	.211/13.4	.204/12.8	.193/12.6	.181/12.6	.172/12.6	.169/12.6	
	15	.188/19.5	.190/18.5	.197/18.5	.207/18.0	.216/17.5	.222/16.5	.225/15.7	.223/15.0	.218/14.6	.210/14.6	.202/14.3	.195/14.3	.192/14.3	
	17	.203/20.3	.205/20.3	.210/19.6	.217/19.6	.224/19.0	.229/18.0	.231/17.5	.230/17.0	.226/16.5	.221/16.5	.214/16.5	.208/16.5	.204/16.5	
15	19	.214/21.7	.216/21.7	.220/21.7	.225/21.7	.230/20.9	.234/20.3	.236/19.6	.235/19.0	.232/18.0	.223/18.0	.218/17.5	.214/17.5	.211/17.5	
	21	.223/24.2	.224/24.2	.227/24.2	.231/23.3	.235/22.4	.238/21.7	.240/20.9	.239/20.3	.237/20.3	.234/19.6	.228/19.6	.227/19.6	.227/19.6	
	7	.043/14.3	.053/14.3	.074/14.3	.096/9.1	.116/7.9	.129/7.0	.135/7.0	.133/7.0	.124/7.0	.108/7.0	.087/7.0	.067/7.0	.057/7.1	
	9	.083/17.5	.090/17.5	.108/17.5	.130/17.5	.150/10.1	.164/9.5	.171/9.2	.169/9.2	.160/9.2	.143/9.2	.123/9.0	.105/9.2	.097/9.2	
	11	.123/20.3	.128/20.3	.142/20.3	.159/20.3	.176/18.6	.188/18.6	.194/18.1	.192/17.6	.184/17.2	.170/17.2	.154/17.2	.140/17.2	.135/17.2	
	13	.155/22.3	.159/20.3	.169/20.3	.182/20.3	.195/20.3	.205/19.3	.209/18.3	.208/17.6	.202/17.2	.191/17.2	.179/17.2	.169/17.2	.166/17.2	
	15	.174/21.7	.182/21.7	.189/20.9	.199/20.9	.209/20.3	.217/19.5	.221/18.7	.220/18.0	.215/18.0	.207/17.5	.198/17.5	.191/17.5	.189/17.5	
20	17	.195/22.4	.197/22.4	.203/22.4	.210/21.7	.219/20.9	.224/20.3	.227/19.5	.227/19.0	.223/19.0	.217/18.5	.211/18.5	.206/18.5	.204/18.5	
	19	.207/24.2	.209/24.2	.213/24.2	.219/23.3	.224/22.4	.229/21.7	.232/20.9	.231/20.3	.226/19.6	.220/19.0	.214/19.0	.210/19.0	.209/19.0	
	21	.217/26.2	.218/26.2	.221/26.2	.226/25.1	.230/24.2	.234/23.3	.236/22.4	.236/21.7	.234/20.9	.231/19.6	.225/19.6	.224/19.6	.224/19.6	
	7	.041/13.4	.050/13.4	.071/13.4	.093/13.4	.113/13.4	.129/7.0	.135/7.0	.134/7.0	.134/7.0	.126/7.0	.111/7.1	.091/7.1	.071/7.5	
	9	.077/19.0	.084/19.0	.103/19.0	.125/19.0	.147/19.0	.164/9.5	.173/9.2	.174/9.0	.174/9.0	.167/8.7	.153/8.5	.135/8.3	.118/8.3	
	11	.115/23.3	.121/23.3	.135/23.3	.153/23.3	.171/23.3	.186/23.3	.194/23.3	.196/23.3	.190/23.3	.178/23.3	.164/23.3	.152/23.3	.147/23.3	
	13	.147/25.2	.151/25.2	.161/25.2	.175/25.2	.190/25.2	.201/25.2	.208/25.2	.209/25.2	.205/25.2	.196/25.2	.185/25.2	.177/25.2	.173/25.2	
25	15	.171/26.2	.174/26.2	.182/26.2	.192/26.2	.204/26.2	.213/26.2	.219/26.2	.220/26.2	.216/26.2	.209/26.2	.201/26.2	.195/26.2	.193/26.2	
	17	.188/27.3	.190/27.3	.196/27.3	.204/27.3	.213/27.3	.220/27.3	.224/27.3	.225/27.3	.223/27.3	.218/27.3	.212/27.3	.207/27.3	.206/27.3	
	19	.201/27.3	.202/27.3	.207/27.3	.213/27.3	.219/27.3	.225/27.3	.229/27.3	.230/27.3	.228/27.3	.224/27.3	.220/27.3	.216/27.3	.215/27.3	
	21	.211/27.3	.212/27.3	.216/27.3	.220/27.3	.224/27.3	.229/27.3	.233/27.3	.233/27.3	.232/27.3	.230/27.3	.226/27.3	.224/27.3	.223/27.3	
	7	.034/16.5	.048/16.5	.068/16.5	.091/16.5	.111/16.5	.126/16.5	.134/7.0	.134/7.0	.134/7.0	.127/7.1	.112/7.1	.093/7.5	.073/7.7	
	9	.073/16.5	.080/16.5	.099/16.5	.122/16.5	.145/16.5	.164/16.5	.176/16.5	.179/8.3	.175/8.3	.164/8.5	.149/8.5	.135/8.5	.129/8.5	
	11	.107/18.9	.115/18.9	.129/18.9	.148/18.9	.168/18.9	.185/18.9	.197/18.9	.202/18.9	.202/18.9	.192/18.9	.181/18.9	.172/18.9	.168/18.9	
	13	.140/20.3	.144/20.3	.155/20.3	.170/20.3	.186/20.3	.199/20.3	.209/20.3	.213/20.3	.210/20.3	.206/20.3	.199/20.3	.192/20.3	.189/20.3	
	15	.165/23.1	.167/23.1	.176/23.1	.187/23.1	.199/23.1	.210/23.1	.218/23.1	.221/23.1	.219/23.1	.216/23.1	.210/23.1	.206/23.1	.204/23.1	
	17	.182/23.1	.184/23.1	.190/23.1	.199/23.1	.204/23.1	.211/23.1	.217/23.1	.220/23.1	.218/23.1	.216/23.1	.210/23.1	.206/23.1	.203/23.1	
	19	.195/23.1	.196/23.1	.201/23.1	.208/23.1	.215/23.1	.222/23.1	.227/23.1	.229/23.1	.227/23.1	.226/23.1	.223/23.1	.221/23.1	.220/23.1	
	21	.205/23.1	.207/23.1	.210/23.1	.216/23.1	.221/23.1	.227/23.1	.230/23.1	.232/23.1	.232/23.1	.231/23.1	.228/23.1	.226/23.1	.225/23.1	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, * IN SECONDS
OF
HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

V T	SHIP HEADING ANGLE IN DEGREES									
	0	15	30	45	60	75	90	105	120	135
5	7 054/11.6	052/8.7	073/7.5	096/7.6	114/7.0	127/7.0	132/6.8	130/6.7	121/6.7	106/6.7
9	059/11.6	066/11.6	084/10.8	103/9.2	121/9.0	133/8.5	139/8.5	137/8.5	130/8.3	117/8.5
11	072/13.1	077/13.1	093/12.6	105/12.1	119/11.6	129/10.8	135/10.1	134/10.1	129/9.8	117/9.8
13	079/14.3	083/14.3	092/14.0	103/13.4	114/13.1	122/12.6	127/12.6	128/11.6	118/11.6	104/11.2
15	082/15.7	084/15.7	091/15.3	099/15.0	108/14.3	114/14.0	119/13.4	120/13.1	118/12.8	104/12.6
17	081/17.5	083/17.0	089/17.0	094/16.5	101/15.7	106/15.3	110/14.6	111/14.5	107/14.3	101/14.3
19	079/19.0	080/19.0	084/18.5	089/18.0	094/17.5	099/17.0	102/17.0	103/16.5	103/16.5	098/16.5
21	076/19.6	077/19.6	080/19.6	084/19.6	088/19.0	092/18.5	095/18.0	096/17.5	095/17.0	092/16.5
10	7 030/12.8	041/12.8	064/12.5	087/12.0	107/11.7	127/11.7	129/11.5	128/11.5	121/11.5	107/11.5
9	045/13.4	053/13.4	072/12.9	094/12.5	113/12.0	127/11.7	134/11.5	136/11.5	131/11.5	119/11.5
11	058/15.3	063/15.3	077/15.3	094/14.4	111/14.6	124/14.0	132/13.7	134/13.4	125/13.1	116/12.8
13	065/16.5	069/16.5	079/16.5	093/15.3	109/15.0	117/14.8	124/14.0	127/14.0	119/13.4	112/12.8
15	069/18.0	071/18.0	079/18.0	093/16.5	109/16.5	117/16.5	124/15.3	127/15.0	119/14.6	112/14.3
17	069/19.0	071/19.0	079/19.0	093/17.5	109/17.5	117/17.5	124/16.5	127/16.5	119/16.5	112/16.5
19	068/20.9	070/20.3	074/19.6	091/19.6	108/19.6	117/19.6	124/18.5	127/18.0	119/18.0	112/18.0
21	066/21.7	068/21.7	071/21.7	091/20.9	108/20.9	117/20.9	124/19.6	127/19.0	119/19.0	112/19.0
15	7 022/14.3	034/14.3	054/14.3	084/14.3	104/14.3	124/14.3	134/14.3	136/14.3	131/14.3	119/14.3
9	035/17.5	044/17.5	064/17.5	087/17.5	107/17.5	127/17.5	134/17.5	136/17.5	131/17.5	119/17.5
11	046/20.3	052/20.3	064/20.3	087/20.3	107/20.3	127/20.3	134/20.3	136/20.3	131/20.3	119/20.3
13	053/20.3	059/20.3	069/20.3	087/20.3	107/20.3	127/20.3	134/20.3	136/20.3	131/20.3	119/20.3
15	057/20.3	060/20.3	069/20.3	087/20.3	107/20.3	127/20.3	134/20.3	136/20.3	131/20.3	119/20.3
17	058/21.7	061/21.7	069/21.7	087/21.7	107/21.7	127/21.7	134/21.7	136/21.7	131/21.7	119/21.7
19	058/23.3	060/22.4	066/22.4	084/22.4	104/22.4	124/22.4	134/22.4	136/22.4	131/22.4	119/22.4
21	058/24.2	059/24.2	064/24.2	084/24.2	104/24.2	124/24.2	134/24.2	136/24.2	131/24.2	119/24.2
20	7 018/13.4	030/13.4	054/13.4	084/13.4	104/13.4	124/13.4	134/13.4	136/13.4	131/13.4	119/13.4
9	027/19.0	037/19.0	059/19.0	089/19.0	109/19.0	129/19.0	139/19.0	141/19.0	136/19.0	124/19.0
11	036/23.3	043/23.3	061/23.3	083/23.3	105/23.3	125/23.3	135/23.3	137/23.3	132/23.3	120/23.3
13	043/23.3	048/23.3	061/23.3	083/23.3	105/23.3	125/23.3	135/23.3	137/23.3	132/23.3	120/23.3
15	047/26.2	051/26.2	061/26.2	076/26.2	092/26.2	107/26.2	122/26.2	124/26.2	123/26.2	112/26.2
17	047/26.2	052/26.2	061/26.2	076/26.2	092/26.2	107/26.2	122/26.2	124/26.2	123/26.2	112/26.2
19	050/27.3	052/27.3	059/27.3	069/27.3	084/27.3	101/27.3	117/27.3	119/27.3	117/27.3	107/27.3
21	050/27.3	052/27.3	059/27.3	069/27.3	084/27.3	101/27.3	117/27.3	119/27.3	117/27.3	107/27.3
25	7 015/16.5	028/16.5	052/16.5	074/16.5	103/16.5	122/16.5	134/16.5	138/16.5	133/16.5	122/16.5
9	022/16.5	032/16.5	056/16.5	084/16.5	112/16.5	130/16.5	145/16.5	152/16.5	144/16.5	130/16.5
11	029/16.5	037/16.5	056/16.5	080/16.5	106/16.5	130/16.5	149/16.5	157/16.5	147/16.5	130/16.5
13	035/24.2	040/24.2	055/24.2	076/24.2	101/24.2	124/24.2	143/24.2	151/24.2	140/24.2	124/24.2
15	043/33.1	043/33.1	055/33.1	072/33.1	091/33.1	109/33.1	125/33.1	141/33.1	134/33.1	124/33.1
17	043/33.1	045/33.1	054/33.1	074/33.1	094/33.1	114/33.1	129/33.1	144/33.1	134/33.1	124/33.1
19	043/33.1	045/33.1	053/33.1	074/33.1	094/33.1	114/33.1	129/33.1	144/33.1	134/33.1	124/33.1
21	043/33.1	045/33.1	052/33.1	074/33.1	094/33.1	114/33.1	129/33.1	144/33.1	134/33.1	124/33.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DU 963

SHOULDERED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)

HELICOPTER DECK HULLSEYE - 141.0 FT FORWARD OF AP AND 51.0 FT FROM BL

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	105/8.3	141/7.5	213/6.7	288/6.3	350/6.3	393/6.3	414/6.3	410/6.3	384/5.7	339/5.7	282/5.7	229/5.7	204/5.7
9	11	118/11.2	144/10.8	200/8.7	262/7.9	315/7.5	353/7.5	373/7.5	373/7.5	355/7.5	320/7.7	278/7.9	239/8.1	222/8.3
11	13	124/12.6	141/12.1	191/11.5	227/9.8	269/9.0	301/8.7	319/8.7	321/8.7	309/8.7	285/9.0	256/9.0	230/10.1	219/9.2
13	15	122/13.4	134/13.4	162/13.1	176/12.1	229/11.5	254/10.8	269/9.8	272/9.8	265/9.8	250/10.1	230/10.1	213/10.1	205/10.1
15	17	115/14.3	123/14.3	144/14.0	170/13.4	195/12.8	215/12.1	228/11.6	232/11.2	228/11.2	217/11.2	204/11.2	192/11.2	188/11.2
17	19	105/15.7	112/15.7	128/15.0	148/14.3	168/14.0	184/13.1	194/12.6	198/12.6	196/12.6	189/12.6	180/12.6	172/12.6	168/12.6
19	21	97/16.5	101/16.5	113/15.7	129/15.7	145/15.0	161/14.6	167/13.7	171/13.1	176/13.1	165/12.6	158/12.6	152/12.6	150/12.6
21	23	88/17.5	91/17.5	101/17.0	114/16.5	127/15.7	138/15.3	145/14.6	149/14.3	144/14.3	145/14.3	140/14.3	135/14.3	133/14.3
10	7	106/12.8	106/7.3	184/6.3	263/6.3	312/6.3	382/6.3	411/6.3	416/6.3	398/6.3	360/6.3	310/5.7	260/5.7	237/5.7
9	11	108/12.8	107/12.8	170/7.3	254/6.3	300/6.3	367/6.7	376/6.7	385/6.7	374/6.7	347/6.3	309/6.3	272/6.3	254/6.3
11	13	105/15.0	105/15.0	151/12.8	204/9.5	254/8.5	295/8.5	321/8.5	332/8.5	328/8.5	311/9.0	286/9.2	262/9.2	251/9.2
13	15	108/16.1	100/15.7	133/15.3	175/12.8	215/11.6	248/10.1	271/9.8	282/9.8	282/9.8	273/10.1	257/10.1	242/10.1	235/10.1
15	17	104/17.0	094/17.0	118/16.1	150/15.3	182/13.6	210/12.1	229/11.6	241/11.2	243/11.2	238/11.2	228/11.2	219/11.2	215/11.2
17	19	107/18.0	086/18.0	105/17.0	130/15.1	156/15.0	179/13.4	196/12.8	205/12.6	209/12.6	207/12.6	201/12.6	195/12.6	192/12.6
19	21	107/19.0	079/18.5	094/18.0	114/17.5	135/15.7	154/15.0	168/14.0	178/13.4	181/13.1	177/13.1	173/13.1	171/13.1	171/13.1
21	23	107/19.6	072/19.6	084/19.0	100/18.5	118/17.5	133/15.7	146/15.0	154/14.6	158/14.3	156/14.3	153/14.3	152/14.3	152/14.3
15	7	104/17.5	087/7.9	159/6.3	254/6.3	329/6.3	387/6.7	423/6.3	434/6.3	421/6.3	386/6.3	337/6.3	285/6.3	261/6.3
9	11	104/17.5	082/17.5	134/9.0	204/8.5	255/7.1	304/7.1	343/7.1	363/7.3	366/8.3	355/8.7	332/9.0	309/9.2	299/9.2
13	15	102/20.3	078/20.3	116/20.3	165/11.6	213/9.2	258/9.2	288/9.2	308/9.5	316/9.8	311/10.1	299/10.1	285/10.1	279/10.1
17	19	102/20.3	073/20.3	102/20.3	140/12.6	179/12.6	215/11.6	243/11.2	262/11.2	271/11.2	270/11.2	264/11.2	258/11.2	252/11.2
19	21	102/20.3	067/20.3	096/20.3	120/15.7	153/14.3	182/12.8	206/12.6	223/12.6	234/12.6	235/12.6	231/12.6	227/12.6	224/12.6
21	23	102/22.4	057/22.4	071/21.7	092/20.3	114/17.5	135/15.7	153/15.0	166/14.6	175/14.3	178/14.3	176/14.3	177/14.3	176/14.3
20	7	102/22.4	050/22.4	102/22.4	120/15.7	153/14.3	182/12.8	206/12.6	223/12.6	234/12.6	235/12.6	231/12.6	227/12.6	224/12.6
9	11	102/22.4	045/22.4	092/22.4	116/15.0	144/12.1	174/12.1	208/11.6	234/11.6	253/11.2	262/11.2	265/11.2	265/11.2	264/11.2
13	15	102/22.4	040/22.4	071/22.4	100/19.0	133/15.0	165/14.0	194/13.4	217/13.4	233/12.6	243/12.6	247/12.6	249/12.6	249/12.6
17	19	102/22.4	036/22.4	063/22.4	097/19.0	115/15.7	142/15.3	167/14.6	187/14.3	202/14.3	211/14.3	215/14.3	217/14.3	217/14.3
21	23	102/22.4	031/22.4	050/22.4	079/19.0	108/18.5	128/18.5	161/18.5	181/18.5	200/18.5	207/18.5	215/18.5	217/18.5	217/18.5
25	7	103/16.5	078/6.3	160/6.3	253/6.5	313/6.5	367/6.5	402/6.5	420/6.5	431/6.5	419/6.7	369/6.7	317/7.1	292/7.1
9	11	103/16.5	069/16.5	145/6.7	238/7.0	313/7.0	387/7.0	440/7.1	472/7.1	480/7.3	466/7.7	438/7.7	406/7.9	392/7.9
13	15	103/16.5	060/16.5	121/7.0	200/7.0	284/7.5	341/7.1	383/7.5	418/7.7	435/7.7	435/7.9	422/8.1	406/8.1	399/8.1
17	19	103/16.5	054/16.5	105/16.5	165/7.1	236/7.7	305/7.7	357/7.9	388/8.1	403/8.3	403/8.3	370/8.3	366/8.3	366/8.3
21	23	103/16.5	049/16.5	086/16.5	134/7.5	195/7.7	263/7.9	327/8.1	355/8.3	375/8.5	384/8.5	329/8.5	286/10.5	324/10.5
25	7	103/16.5	045/16.5	071/16.5	116/16.5	154/16.5	194/16.5	228/16.5	254/16.5	273/16.5	282/16.5	285/16.5	285/16.5	284/16.5
9	11	103/16.5	041/16.5	065/16.5	104/16.5	139/16.5	169/16.5	194/16.5	217/16.5	233/16.5	243/16.5	247/16.5	249/16.5	249/16.5
13	15	103/16.5	038/16.5	057/16.5	086/16.5	114/16.5	134/16.5	167/16.5	187/16.5	200/16.5	207/16.5	215/16.5	217/16.5	217/16.5
17	19	103/16.5	034/16.5	053/16.5	082/16.5	111/16.5	131/16.5	164/16.5	184/16.5	200/16.5	207/16.5	215/16.5	217/16.5	217/16.5
21	23	103/16.5	031/16.5	050/16.5	079/16.5	108/16.5	128/16.5	161/16.5	181/16.5	200/16.5	207/16.5	215/16.5	217/16.5	217/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

40711

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

DE 1040

RMS TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

DE 1040

LONGCRESTED
RMS ROLL IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

V	T	SHIP HEADING ANGLE I, IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	000/8.7	247/8.7	384/8.7	483/9.2	591/9.2	563/8.5	384/8.5	375/8.3	336/8.1	244/7.9	156/8.1	082/8.3	000/8.0
	9	000/8.7	225/8.7	391/9.0	555/9.2	700/9.0	677/9.0	532/9.0	533/8.7	520/8.7	435/8.7	319/8.7	191/8.7	000/8.0
	11	000/8.7	181/8.7	328/9.2	483/9.2	612/9.2	601/9.0	504/9.0	521/9.0	528/9.0	466/9.0	358/9.0	220/8.7	000/8.0
	13	000/8.7	143/8.7	264/9.2	343/9.2	446/9.2	442/9.0	425/9.0	447/9.0	461/9.0	416/9.0	325/9.0	201/9.0	000/8.0
	15	000/8.7	114/8.7	213/9.5	316/9.2	399/9.2	397/9.0	349/9.0	369/9.0	384/9.0	350/9.0	276/9.0	171/9.0	000/8.0
	17	000/8.7	092/8.7	173/9.5	257/9.2	324/9.2	323/9.0	287/9.0	304/9.0	318/9.0	291/9.0	230/9.0	142/9.0	000/8.0
	19	000/8.7	076/8.7	143/9.5	212/9.2	266/9.2	266/9.0	238/9.0	253/9.0	264/9.0	243/9.0	192/9.0	118/9.0	000/8.0
	21	000/8.7	063/8.7	119/9.5	177/9.2	222/9.2	222/9.0	200/9.0	212/9.0	222/9.0	204/9.0	162/9.0	099/9.0	000/8.0
	10	7	000/13.4	066/12.8	174/11.6	503/9.5	671/9.2	603/8.5	334/8.5	282/8.3	229/7.5	153/7.5	090/7.5	043/7.5
9		000/13.4	073/12.8	174/11.6	436/9.5	606/9.2	650/9.0	445/9.0	411/9.2	370/9.2	294/9.2	203/9.2	117/9.2	000/8.0
11		000/13.4	071/12.8	164/13.1	356/9.5	550/9.5	556/9.2	432/9.0	422/9.2	406/9.5	351/9.5	263/10.1	164/10.1	000/8.0
13		000/13.4	063/12.8	142/13.4	287/9.5	437/9.5	449/9.2	368/9.0	373/9.5	372/9.8	335/10.1	259/10.1	165/10.1	000/8.0
15		000/13.4	055/12.8	120/13.4	232/9.5	349/9.5	361/9.2	305/9.2	315/9.5	320/9.8	294/10.1	231/10.1	147/10.1	000/8.0
17		000/13.4	047/12.8	101/13.7	189/9.5	282/9.5	293/9.2	252/9.2	263/9.5	269/9.8	250/10.1	197/10.1	126/10.1	000/8.0
19		000/13.4	040/12.8	095/13.7	157/9.5	232/9.5	242/9.2	210/9.2	220/9.5	227/9.8	211/10.1	168/10.1	107/10.1	000/8.0
21		000/13.4	034/12.8	072/13.7	132/9.5	193/9.5	202/9.2	177/9.2	186/9.5	192/9.8	179/10.1	143/10.1	90/10.1	000/8.0
15		7	000/20.3	038/19.6	085/17.5	198/14.3	581/10.1	627/8.5	288/8.3	217/7.9	164/7.5	106/7.5	060/7.5	028/7.5
	9	000/20.3	049/19.6	114/17.5	250/14.3	530/10.5	618/9.0	380/9.0	313/9.2	261/9.5	202/9.5	134/9.2	072/9.2	000/8.0
	11	000/20.3	052/19.6	117/17.5	216/14.3	433/10.8	513/9.2	366/9.2	335/9.8	303/10.5	237/10.5	186/10.1	109/10.1	000/8.0
	13	000/20.3	049/19.6	107/17.5	187/14.3	346/10.8	411/9.2	316/9.2	306/10.1	291/10.5	260/10.5	219/11.2	119/11.2	000/8.0
	15	000/20.3	044/19.6	093/17.5	158/14.3	274/10.8	329/9.5	264/9.5	264/10.1	258/10.5	237/10.5	183/11.2	113/11.2	000/8.0
	17	000/20.3	038/19.6	089/17.5	133/14.3	227/10.8	267/9.5	220/9.5	224/10.1	222/10.8	207/11.2	162/11.2	100/11.2	000/8.0
	19	000/20.3	033/19.6	069/17.5	112/14.3	187/10.8	220/9.5	184/9.5	199/10.1	190/10.8	178/11.2	140/11.2	086/11.2	000/8.0
	21	000/20.3	029/19.6	060/17.5	096/14.3	157/10.8	184/9.5	156/9.5	161/10.1	163/10.8	153/11.2	121/11.2	074/11.2	000/8.0
	20	7	000/7.1	039/33.1	118/26.2	147/19.0	375/13.4	738/9.0	279/8.3	185/7.5	133/7.5	081/7.3	045/7.5	021/7.3
9		000/28.5	048/27.3	116/23.3	188/19.0	383/13.4	682/9.2	366/9.0	273/9.5	217/9.5	155/9.2	103/9.2	053/9.2	000/8.0
11		000/27.3	051/26.2	112/23.3	164/19.0	331/13.4	536/9.2	354/9.2	303/10.1	264/10.5	208/10.5	153/11.2	089/11.2	000/8.0
13		000/27.3	048/26.2	102/23.3	140/19.0	273/13.4	423/9.5	306/9.5	284/10.1	264/10.8	222/11.6	174/11.2	107/11.2	000/8.0
15		000/27.3	043/26.2	089/23.3	120/19.0	224/13.4	336/9.5	256/9.5	249/10.8	240/11.6	210/11.6	170/11.2	107/12.0	000/8.0
17		000/27.3	038/26.2	077/23.3	100/19.0	185/13.4	272/9.5	214/9.5	213/10.8	210/11.6	188/11.6	154/12.6	098/12.6	000/8.0
19		000/27.3	033/26.2	057/23.3	102/19.0	131/13.4	223/9.5	179/9.5	182/10.8	181/11.6	154/11.6	136/12.6	097/12.6	000/8.0
21		000/27.3	029/26.2	058/23.3	088/19.0	131/13.4	187/9.5	152/9.5	155/10.8	156/11.6	143/11.6	118/12.6	076/12.6	000/8.0
25		7	000/7.7	068/7.3	122/6.8	158/24.9	313/15.5	871/9.2	271/8.3	157/7.5	107/7.1	063/7.3	035/7.5	016/7.5
	9	000/7.7	063/52.4	124/37.0	167/24.2	334/15.5	731/9.5	353/9.0	233/9.8	173/9.5	121/9.2	079/9.2	040/9.2	000/8.0
	11	000/7.7	060/39.3	119/29.9	181/24.2	246/15.5	569/9.5	342/9.2	257/10.1	216/10.8	158/11.2	123/11.2	071/12.0	000/8.0
	13	000/34.9	054/33.1	108/29.9	161/24.2	246/15.5	442/9.5	298/9.5	257/10.8	224/11.6	189/11.6	148/12.6	092/12.6	000/8.0
	15	000/34.9	048/33.1	094/29.9	139/24.2	206/15.5	349/9.5	249/9.5	210/10.8	210/11.6	186/12.8	151/12.6	096/12.6	000/8.0
	17	000/34.9	042/33.1	082/29.9	114/24.2	172/15.5	281/9.5	208/9.5	198/11.2	188/12.1	170/12.8	141/12.6	090/12.6	000/8.0
	19	000/34.9	036/33.1	070/29.9	106/24.2	144/15.5	230/9.5	175/9.5	170/11.2	164/12.1	151/12.8	126/12.6	081/12.6	000/8.0
	21	000/34.9	031/33.1	061/29.9	088/24.2	123/15.5	192/9.5	149/9.8	146/11.2	143/12.1	133/12.8	111/12.8	072/12.8	000/8.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

UNREQUESTED
RMS PITCH IN DEGREES/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS
DE

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.40/10.5	.42/10.5	.44/9.5	.46/9.0	.48/8.7	.50/8.4	.52/8.2	.54/8.0	.56/7.8	.58/7.6	.60/7.5	.62/7.4	.64/7.3	
	9	.69/11.6	.71/11.2	.73/10.5	.75/10.1	.77/9.8	.79/9.5	.81/9.3	.83/9.1	.85/8.9	.87/8.7	.89/8.5	.91/8.4	.93/8.3	
	11	.82/12.1	.84/12.1	.86/11.6	.88/11.3	.90/11.0	.92/10.8	.94/10.6	.96/10.4	.98/10.2	.100/10.0	.102/9.8	.104/9.7	.106/9.6	
	13	.83/13.4	.85/13.4	.87/13.1	.89/12.8	.91/12.6	.93/12.4	.95/12.2	.97/12.0	.99/11.8	.101/11.6	.103/11.4	.105/11.2	.107/11.0	
	15	.78/14.3	.80/14.3	.82/14.0	.84/13.7	.86/13.4	.88/13.2	.90/13.0	.92/12.8	.94/12.6	.96/12.4	.98/12.2	.100/12.0	.102/11.8	
	17	.72/15.7	.74/15.7	.76/15.4	.78/15.1	.80/14.8	.82/14.6	.84/14.4	.86/14.2	.88/14.0	.90/13.8	.92/13.6	.94/13.4	.96/13.2	
	19	.65/15.7	.67/15.7	.69/15.4	.71/15.1	.73/14.8	.75/14.6	.77/14.4	.79/14.2	.81/14.0	.83/13.8	.85/13.6	.87/13.4	.89/13.2	
10	7	.34/13.7	.36/13.4	.38/13.1	.40/12.8	.42/12.6	.44/12.4	.46/12.2	.48/12.0	.50/11.8	.52/11.6	.54/11.4	.56/11.2	.58/11.0	
	9	.61/14.3	.63/14.0	.65/13.7	.67/13.4	.69/13.2	.71/13.0	.73/12.8	.75/12.6	.77/12.4	.79/12.2	.81/12.0	.83/11.8	.85/11.6	
	11	.73/15.0	.75/14.6	.77/14.3	.79/14.0	.81/13.7	.83/13.4	.85/13.2	.87/13.0	.89/12.8	.91/12.6	.93/12.4	.95/12.2	.97/12.0	
	13	.75/15.7	.77/15.3	.79/15.0	.81/14.7	.83/14.4	.85/14.2	.87/14.0	.89/13.8	.91/13.6	.93/13.4	.95/13.2	.97/13.0	.99/12.8	
	15	.71/16.1	.73/16.1	.75/15.8	.77/15.5	.79/15.3	.81/15.0	.83/14.8	.85/14.6	.87/14.4	.89/14.2	.91/14.0	.93/13.8	.95/13.6	
	17	.65/17.0	.67/17.0	.69/16.7	.71/16.4	.73/16.2	.75/16.0	.77/15.8	.79/15.6	.81/15.4	.83/15.2	.85/15.0	.87/14.8	.89/14.6	
	19	.58/18.0	.60/18.0	.62/17.7	.64/17.4	.66/17.2	.68/17.0	.70/16.8	.72/16.6	.74/16.4	.76/16.2	.78/16.0	.80/15.8	.82/15.6	
15	7	.53/18.5	.55/18.0	.57/17.5	.59/17.0	.61/16.5	.63/16.0	.65/15.5	.67/15.0	.69/14.5	.71/14.0	.73/13.5	.75/13.0	.77/12.5	
	9	.30/20.3	.32/20.3	.34/19.6	.36/19.3	.38/19.0	.40/18.7	.42/18.4	.44/18.2	.46/18.0	.48/17.8	.50/17.6	.52/17.4	.54/17.2	
	11	.66/20.3	.68/20.3	.70/19.6	.72/19.3	.74/19.0	.76/18.7	.78/18.4	.80/18.2	.82/18.0	.84/17.8	.86/17.6	.88/17.4	.90/17.2	
	13	.67/20.3	.69/20.3	.71/19.6	.73/19.3	.75/19.0	.77/18.7	.79/18.4	.81/18.2	.83/18.0	.85/17.8	.87/17.6	.89/17.4	.91/17.2	
	15	.64/20.3	.66/19.8	.68/19.3	.70/18.8	.72/18.3	.74/17.8	.76/17.3	.78/16.8	.80/16.3	.82/15.8	.84/15.3	.86/14.8	.88/14.3	
	17	.59/20.3	.61/19.6	.63/19.1	.65/18.6	.67/18.1	.69/17.6	.71/17.1	.73/16.6	.75/16.1	.77/15.6	.79/15.1	.81/14.6	.83/14.1	
	19	.54/20.3	.56/19.6	.58/19.1	.60/18.5	.62/18.0	.64/17.5	.66/17.0	.68/16.5	.70/16.0	.72/15.5	.74/15.0	.76/14.5	.78/14.0	
20	7	.49/20.3	.51/19.6	.53/19.1	.55/18.5	.57/18.0	.59/17.5	.61/17.0	.63/16.5	.65/16.0	.67/15.5	.69/15.0	.71/14.5	.73/14.0	
	9	.29/27.0	.31/26.3	.33/25.8	.35/25.3	.37/24.8	.39/24.3	.41/23.8	.43/23.3	.45/22.8	.47/22.3	.49/21.8	.51/21.3	.53/20.8	
	11	.50/28.6	.52/28.1	.54/27.6	.56/27.1	.58/26.6	.60/26.1	.62/25.6	.64/25.1	.66/24.6	.68/24.1	.70/23.6	.72/23.1	.74/22.6	
	13	.62/27.3	.64/26.8	.66/26.3	.68/25.8	.70/25.3	.72/24.8	.74/24.3	.76/23.8	.78/23.3	.80/22.8	.82/22.3	.84/21.8	.86/21.3	
	15	.59/27.3	.61/26.8	.63/26.3	.65/25.8	.67/25.3	.69/24.8	.71/24.3	.73/23.8	.75/23.3	.77/22.8	.79/22.3	.81/21.8	.83/21.3	
	17	.54/27.3	.56/26.8	.58/26.3	.60/25.8	.62/25.3	.64/24.8	.66/24.3	.68/23.8	.70/23.3	.72/22.8	.74/22.3	.76/21.8	.78/21.3	
	19	.49/27.3	.51/26.8	.53/26.3	.55/25.8	.57/25.3	.59/24.8	.61/24.3	.63/23.8	.65/23.3	.67/22.8	.69/22.3	.71/21.8	.73/21.3	
25	7	.27/27.0	.29/26.5	.31/26.0	.33/25.5	.35/25.0	.37/24.5	.39/24.0	.41/23.5	.43/23.0	.45/22.5	.47/22.0	.49/21.5	.51/21.0	
	9	.46/27.1	.48/26.6	.50/26.1	.52/25.6	.54/25.1	.56/24.6	.58/24.1	.60/23.6	.62/23.1	.64/22.6	.66/22.1	.68/21.6	.70/21.1	
	11	.56/27.3	.58/26.8	.60/26.3	.62/25.8	.64/25.3	.66/24.8	.68/24.3	.70/23.8	.72/23.3	.74/22.8	.76/22.3	.78/21.8	.80/21.3	
	13	.53/27.3	.55/26.8	.57/26.3	.59/25.8	.61/25.3	.63/24.8	.65/24.3	.67/23.8	.69/23.3	.71/22.8	.73/22.3	.75/21.8	.77/21.3	
	15	.53/27.3	.55/26.8	.57/26.3	.59/25.8	.61/25.3	.63/24.8	.65/24.3	.67/23.8	.69/23.3	.71/22.8	.73/22.3	.75/21.8	.77/21.3	
	17	.49/27.3	.51/26.8	.53/26.3	.55/25.8	.57/25.3	.59/24.8	.61/24.3	.63/23.8	.65/23.3	.67/22.8	.69/22.3	.71/21.8	.73/21.3	
	19	.44/27.3	.46/26.8	.48/26.3	.50/25.8	.52/25.3	.54/24.8	.56/24.3	.58/23.8	.60/23.3	.62/22.8	.64/22.3	.66/21.8	.68/21.3	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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DE 1040														
LUNGGRESTED														
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OF														
CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM HL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/.8.7	.011/.8.7	.024/.10.5	.043/.9.8	.074/.9.2	.117/.8.3	.148/.7.3	.164/.7.3	.052/.7.7	.025/.7.7	.012/.7.9	.005/.7.9	.000/.8.0
9	9	.000/.12.6	.023/.12.6	.051/.12.1	.086/.11.2	.124/.10.5	.169/.9.8	.184/.9.2	.147/.9.2	.097/.9.5	.058/.9.5	.032/.9.2	.014/.9.2	.000/.8.0
11	11	.000/.14.3	.037/.14.3	.077/.14.0	.121/.12.8	.166/.12.6	.202/.11.6	.229/.11.2	.203/.11.2	.134/.10.8	.091/.11.2	.055/.11.2	.026/.11.2	.000/.8.0
13	13	.000/.15.7	.047/.15.7	.096/.15.3	.145/.15.0	.190/.14.6	.229/.14.3	.259/.14.0	.230/.14.0	.161/.13.8	.115/.12.8	.074/.12.6	.036/.12.6	.000/.8.0
15	15	.000/.17.5	.055/.17.5	.109/.17.0	.161/.17.0	.206/.16.5	.236/.16.1	.242/.15.7	.220/.15.3	.180/.15.0	.135/.14.6	.089/.14.3	.044/.14.3	.000/.8.0
17	17	.000/.19.6	.082/.19.6	.146/.19.0	.210/.19.0	.264/.18.0	.292/.17.5	.248/.17.0	.224/.17.0	.192/.17.0	.147/.16.5	.098/.16.5	.049/.16.5	.000/.8.0
19	19	.000/.21.7	.108/.21.7	.181/.21.7	.251/.21.7	.307/.21.7	.336/.21.7	.251/.20.9	.230/.20.3	.193/.20.3	.149/.19.6	.100/.19.6	.050/.19.6	.000/.8.0
21	21	.000/.25.1	.168/.25.1	.252/.25.1	.336/.25.1	.392/.25.1	.421/.25.1	.251/.20.9	.230/.20.3	.193/.20.3	.149/.19.6	.100/.19.6	.050/.19.6	.000/.8.0
10	7	.000/.13.4	.017/.12.8	.033/.11.4	.052/.11.6	.090/.9.8	.130/.8.7	.148/.7.5	.099/.7.5	.048/.7.7	.022/.7.9	.013/.8.1	.004/.8.1	.000/.8.0
9	9	.000/.15.0	.030/.15.0	.062/.14.0	.099/.13.1	.145/.11.8	.182/.10.1	.186/.9.2	.141/.9.5	.089/.9.5	.052/.9.5	.028/.10.1	.012/.9.8	.000/.8.0
11	11	.000/.16.1	.044/.16.1	.089/.15.3	.136/.13.4	.183/.11.6	.223/.11.2	.212/.11.2	.173/.11.2	.124/.11.6	.082/.11.2	.049/.11.2	.023/.11.2	.000/.8.0
13	13	.000/.18.0	.055/.18.0	.109/.16.5	.161/.15.7	.206/.14.6	.233/.13.7	.230/.13.0	.196/.13.4	.150/.13.1	.106/.12.8	.066/.12.8	.032/.12.8	.000/.8.0
15	15	.000/.18.5	.061/.18.5	.121/.18.0	.176/.18.0	.220/.17.0	.245/.16.5	.242/.15.7	.212/.15.3	.169/.15.0	.124/.14.6	.080/.14.3	.039/.14.3	.000/.8.0
17	17	.000/.20.3	.065/.19.5	.127/.19.0	.183/.18.5	.226/.18.0	.250/.17.0	.248/.18.0	.212/.17.5	.181/.17.0	.138/.17.0	.090/.16.5	.045/.16.5	.000/.8.0
19	19	.000/.21.7	.068/.21.7	.131/.21.7	.187/.20.9	.229/.19.6	.251/.19.0	.250/.19.0	.226/.17.5	.189/.17.5	.144/.17.0	.096/.19.0	.048/.19.0	.000/.8.0
21	21	.000/.25.1	.069/.24.2	.134/.24.2	.190/.23.3	.230/.22.4	.252/.21.7	.251/.20.9	.230/.20.3	.193/.20.3	.149/.19.6	.100/.19.6	.050/.19.6	.000/.8.0
15	7	.000/.088	.079/.19.6	.109/.17.5	.105/.14.3	.164/.12.8	.146/.9.0	.149/.7.5	.094/.7.5	.043/.9.2	.020/.7.9	.009/.8.1	.001/.9.2	.000/.8.0
9	9	.000/.088	.067/.19.6	.114/.17.5	.163/.16.1	.202/.14.6	.227/.12.8	.212/.11.2	.165/.11.2	.115/.11.6	.074/.11.6	.043/.11.2	.020/.11.2	.000/.8.0
11	11	.000/.088	.072/.19.6	.133/.19.0	.185/.17.5	.225/.15.7	.244/.14.0	.230/.14.0	.188/.13.4	.140/.13.1	.096/.12.8	.059/.12.8	.028/.12.8	.000/.8.0
13	13	.000/.088	.076/.20.3	.142/.20.3	.197/.18.5	.237/.17.0	.254/.17.0	.241/.15.7	.204/.15.3	.139/.15.0	.114/.14.6	.073/.14.3	.035/.14.3	.000/.8.0
15	15	.000/.088	.079/.22.4	.147/.21.7	.203/.20.3	.241/.18.5	.258/.17.5	.246/.17.0	.214/.17.0	.117/.17.0	.126/.17.0	.082/.16.5	.040/.16.5	.000/.8.0
17	17	.000/.088	.080/.24.2	.150/.23.3	.205/.22.4	.243/.20.9	.258/.19.0	.249/.18.0	.219/.17.5	.179/.17.5	.139/.19.6	.089/.19.6	.044/.19.0	.000/.8.0
19	19	.000/.27.3	.081/.26.2	.152/.26.2	.207/.25.1	.244/.23.3	.258/.21.7	.250/.20.9	.223/.20.3	.184/.20.3	.139/.19.6	.093/.19.6	.047/.19.6	.000/.8.0
21	21	.000/.088	.119/.52.4	.204/.39.3	.264/.19.0	.149/.13.4	.165/.9.5	.150/.7.5	.089/.7.5	.041/.7.7	.018/.7.7	.008/.8.1	.003/.8.1	.000/.8.0
9	9	.000/.088	.121/.26.2	.202/.23.3	.267/.19.0	.148/.13.4	.164/.11.2	.184/.9.2	.128/.9.5	.076/.9.2	.043/.9.5	.022/.9.1	.009/.9.2	.000/.8.0
11	11	.000/.088	.124/.26.2	.198/.23.3	.261/.19.0	.233/.15.3	.242/.13.4	.231/.11.2	.158/.11.2	.106/.11.6	.071/.11.6	.039/.11.2	.018/.12.8	.000/.8.0
13	13	.000/.088	.120/.26.2	.194/.23.3	.262/.19.0	.232/.15.0	.247/.14.6	.230/.14.0	.160/.13.4	.130/.13.1	.088/.12.8	.059/.12.8	.025/.12.8	.000/.8.0
15	15	.000/.088	.117/.26.2	.197/.23.3	.239/.19.0	.261/.18.5	.265/.16.1	.241/.15.7	.197/.15.3	.149/.15.0	.105/.14.6	.066/.14.6	.032/.14.6	.000/.8.0
17	17	.000/.088	.113/.26.2	.195/.23.3	.240/.19.0	.263/.19.6	.266/.18.0	.246/.17.0	.206/.17.0	.161/.17.0	.117/.17.0	.075/.16.5	.037/.16.5	.000/.8.0
19	19	.000/.088	.110/.26.2	.192/.23.3	.240/.24.2	.263/.21.7	.267/.19.6	.248/.18.0	.212/.17.5	.169/.17.5	.125/.19.6	.082/.19.6	.040/.19.0	.000/.8.0
21	21	.000/.088	.108/.26.2	.190/.23.3	.234/.25.1	.263/.24.2	.267/.22.4	.249/.20.9	.216/.20.3	.174/.20.3	.130/.19.6	.087/.19.6	.043/.19.6	.000/.8.0
25	7	.000/.088	.101/.9.5	.177/.89.8	.291/.29.9	.265/.16.5	.188/.10.1	.150/.7.5	.084/.7.5	.038/.7.7	.017/.7.7	.007/.8.1	.003/.8.1	.000/.8.0
9	9	.000/.088	.140/.49.3	.233/.33.1	.331/.22.2	.288/.16.5	.235/.11.6	.184/.9.2	.122/.9.5	.071/.9.5	.034/.9.5	.020/.9.1	.009/.9.2	.000/.8.0
11	11	.000/.088	.150/.33.1	.250/.29.9	.337/.24.2	.249/.16.5	.261/.13.4	.241/.11.2	.151/.11.2	.099/.11.6	.061/.11.6	.035/.11.2	.016/.11.2	.000/.8.0
13	13	.000/.088	.161/.33.1	.256/.29.9	.337/.24.2	.249/.16.5	.273/.15.3	.230/.14.0	.173/.13.4	.121/.13.1	.080/.12.8	.048/.12.8	.023/.13.1	.000/.8.0
15	15	.000/.088	.162/.33.1	.257/.29.9	.342/.24.2	.249/.16.5	.279/.16.5	.240/.15.7	.189/.15.3	.139/.15.0	.096/.14.6	.060/.14.6	.029/.14.6	.000/.8.0
17	17	.000/.088	.158/.33.1	.254/.29.9	.314/.24.2	.245/.18.0	.280/.18.5	.245/.18.0	.198/.17.5	.151/.17.0	.108/.17.0	.069/.16.5	.033/.16.5	.000/.8.0
19	19	.000/.088	.152/.33.1	.248/.29.9	.307/.24.2	.244/.23.3	.278/.20.3	.246/.18.0	.204/.17.5	.159/.19.6	.116/.19.6	.075/.19.6	.037/.19.0	.000/.8.0
21	21	.000/.088	.146/.33.1	.242/.29.9	.294/.24.2	.244/.25.1	.277/.23.3	.248/.20.9	.208/.20.3	.164/.20.3	.122/.19.6	.080/.19.6	.040/.19.6	.000/.8.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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V	T	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	
7	00	8.7	0017.8.7	016.10.1	029.4.5	052.7.4.0	075.7.4	095.7.4.0	117.7.4.0	143.7.0	098.7.0	064.7.1	021.7.5	012.7.7	006.7.5.0	000.000.0000																					
9	00	12.1	0131.2.1	028.11.1	046.10.6	074.9.8	117.9.2	145.9.0	182.9.0	145.9.0	118.10.1	084.10.5	056.10.5	034.10.1	016.10.1	000.000.0000																					
11	00	13.4	0171.3.4	042.11.4	062.11.6	094.11.3	122.11.6	146.11.0	182.11.0	132.11.6	104.11.6	074.11.6	046.11.6	024.11.6	000.000.0000																						
13	00	14.6	023.11.7	042.11.4	062.11.6	094.11.3	122.11.6	146.11.0	182.11.0	132.11.6	104.11.6	074.11.6	046.11.6	024.11.6	000.000.0000																						
15	00	15.1	028.11.7	042.11.4	062.11.6	094.11.3	122.11.6	146.11.0	182.11.0	132.11.6	104.11.6	074.11.6	046.11.6	024.11.6	000.000.0000																						
17	00	17.4	022.11.7	042.11.4	062.11.6	094.11.3	122.11.6	146.11.0	182.11.0	132.11.6	104.11.6	074.11.6	046.11.6	024.11.6	000.000.0000																						
19	00	17.4	022.11.7	042.11.4	062.11.6	094.11.3	122.11.6	146.11.0	182.11.0	132.11.6	104.11.6	074.11.6	046.11.6	024.11.6	000.000.0000																						
21	00	17.4	022.11.7	042.11.4	062.11.6	094.11.3	122.11.6	146.11.0	182.11.0	132.11.6	104.11.6	074.11.6	046.11.6	024.11.6	000.000.0000																						
10	7	00	13.4	0084.12.4	013.11.5	024.11.5	046.11.5	074.11.5	104.11.5	134.11.5	164.11.5	194.11.5	224.11.5	254.11.5	284.11.5	314.11.5	344.11.5	374.11.5	404.11.5	434.11.5	464.11.5	494.11.5	524.11.5	554.11.5	584.11.5	614.11.5	644.11.5	674.11.5	704.11.5	734.11.5	764.11.5	794.11.5	824.11.5	854.11.5	884.11.5	914.11.5	
9	00	15.0	0131.5.0	028.11.5	046.11.5	074.11.5	104.11.5	134.11.5	164.11.5	194.11.5	224.11.5	254.11.5	284.11.5	314.11.5	344.11.5	374.11.5	404.11.5	434.11.5	464.11.5	494.11.5	524.11.5	554.11.5	584.11.5	614.11.5	644.11.5	674.11.5	704.11.5	734.11.5	764.11.5	794.11.5	824.11.5	854.11.5	884.11.5	914.11.5	944.11.5	974.11.5	
11	00	15.7	0171.5.7	037.11.5	057.11.5	077.11.5	097.11.5	117.11.5	137.11.5	157.11.5	177.11.5	197.11.5	217.11.5	237.11.5	257.11.5	277.11.5	297.11.5	317.11.5	337.11.5	357.11.5	377.11.5	397.11.5	417.11.5	437.11.5	457.11.5	477.11.5	497.11.5	517.11.5	537.11.5	557.11.5	577.11.5	597.11.5	617.11.5	637.11.5	657.11.5	677.11.5	697.11.5
13	00	17.0	0201.7.0	041.11.5	061.11																																

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1940														
LONGESTED														
HMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OE														
(ACC. X 100)														
CENTER OF GRAVITY - 146.3 FT FORWARD OF AP AND 14.0 FT FROM BL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/8.7	.016/8.7	.035/8.3	.064/7.2	.121/5.7	.253/7.5	.473/6.3	.310/7.3	.137/7.0	.071/7.3	.042/4.4	.021/5.2	.000/0.000
9	9	.000/8.7	.022/11.6	.050/11.2	.092/10.5	.160/9.5	.268/9.0	.403/7.3	.303/7.3	.173/7.9	.099/9.0	.055/9.2	.025/9.2	.000/0.000
11	11	.000/13.4	.027/13.1	.059/12.6	.104/11.6	.165/10.8	.249/9.2	.336/9.2	.273/9.2	.180/9.5	.115/9.5	.068/10.1	.032/10.1	.000/0.000
13	13	.000/14.3	.029/14.3	.062/14.0	.103/12.8	.157/12.1	.221/10.8	.282/10.5	.239/10.1	.171/10.5	.117/10.5	.073/11.2	.035/11.2	.000/0.000
15	15	.000/15.7	.024/15.7	.060/14.3	.097/14.0	.142/13.4	.193/12.6	.238/11.6	.209/11.6	.156/11.6	.111/11.6	.071/12.6	.035/12.6	.000/0.000
17	17	.000/15.7	.027/15.7	.066/15.7	.104/15.3	.147/14.6	.197/13.7	.233/12.6	.180/13.4	.141/13.4	.103/12.8	.067/12.8	.033/12.8	.000/0.000
19	19	.000/17.5	.025/17.5	.061/17.0	.091/15.3	.113/15.0	.147/14.6	.174/14.0	.157/13.7	.125/13.7	.093/12.6	.062/12.6	.031/12.6	.000/0.000
21	21	.000/17.5	.023/17.5	.057/17.0	.083/15.3	.100/15.0	.124/14.6	.151/13.7	.137/13.7	.111/13.7	.084/12.6	.056/12.6	.028/12.6	.000/0.000
10	7	.000/13.4	.011/12.8	.026/11.9	.050/11.2	.114/9.5	.246/8.1	.471/6.3	.330/7.3	.150/7.0	.076/7.3	.043/4.4	.021/5.2	.000/0.000
9	9	.000/13.4	.017/12.8	.040/13.7	.077/12.6	.149/10.5	.261/9.0	.403/7.3	.321/7.5	.194/7.9	.109/8.3	.060/8.5	.027/8.7	.000/0.000
11	11	.000/16.1	.022/15.7	.049/14.6	.089/13.4	.153/11.5	.242/9.8	.337/9.2	.286/9.5	.194/9.5	.125/10.1	.074/10.1	.034/10.1	.000/0.000
13	13	.000/17.0	.024/16.5	.052/15.3	.090/14.3	.145/13.4	.214/12.6	.283/11.6	.250/12.1	.183/10.5	.126/10.5	.078/11.2	.037/11.2	.000/0.000
15	15	.000/17.5	.024/17.0	.051/15.5	.086/15.3	.132/14.3	.187/13.7	.239/11.6	.216/12.1	.166/11.6	.120/11.6	.077/12.6	.037/12.6	.000/0.000
17	17	.000/18.5	.023/18.0	.048/17.5	.074/16.5	.118/14.9	.163/13.7	.203/12.6	.187/13.4	.149/13.1	.110/12.8	.072/12.8	.036/12.8	.000/0.000
19	19	.000/19.6	.021/19.6	.044/18.0	.072/17.0	.105/15.7	.142/15.0	.174/14.0	.163/13.7	.132/14.6	.100/14.6	.066/14.3	.033/14.3	.000/0.000
21	21	.000/19.6	.020/19.6	.041/19.0	.065/18.5	.094/17.5	.124/16.5	.151/15.7	.142/15.3	.117/15.0	.089/14.6	.060/14.6	.030/14.6	.000/0.000
15	7	.000/20.3	.009/19.6	.023/17.5	.047/14.3	.102/10.8	.240/8.5	.471/6.3	.349/7.3	.163/6.7	.080/7.3	.044/7.5	.021/5.2	.000/0.000
9	9	.000/20.3	.014/19.6	.034/17.5	.057/14.3	.131/12.1	.233/9.2	.404/7.9	.337/7.5	.205/8.1	.114/8.3	.065/8.7	.029/8.7	.000/0.000
11	11	.000/20.3	.020/19.6	.041/17.5	.077/15.3	.137/13.1	.233/10.5	.338/9.0	.299/9.2	.208/9.2	.134/9.5	.080/10.1	.037/10.1	.000/0.000
13	13	.000/20.3	.020/19.6	.044/17.5	.074/16.5	.131/14.0	.207/11.6	.283/10.5	.269/10.1	.194/10.8	.135/11.2	.084/11.2	.040/11.2	.000/0.000
15	15	.000/20.3	.019/19.6	.042/17.5	.070/17.5	.120/15.3	.190/12.8	.239/11.6	.224/12.1	.176/11.6	.127/11.6	.082/12.6	.040/12.6	.000/0.000
17	17	.000/20.3	.019/19.6	.042/19.0	.070/17.5	.104/14.0	.157/14.0	.203/12.6	.194/13.4	.157/13.1	.117/12.8	.077/12.8	.038/12.8	.000/0.000
19	19	.000/20.3	.019/20.9	.039/20.3	.064/18.5	.097/17.0	.137/15.3	.175/14.0	.168/13.7	.139/14.6	.105/14.6	.071/14.3	.035/14.3	.000/0.000
21	21	.000/22.4	.017/22.4	.036/20.3	.058/19.0	.086/17.0	.124/15.7	.151/15.7	.146/15.3	.123/15.0	.095/14.6	.064/14.6	.032/14.6	.000/0.000
20	7	.000/24.9	.007/21.4	.018/24.2	.040/19.0	.091/13.4	.235/9.0	.469/5.3	.366/6.3	.176/6.7	.085/7.3	.044/7.5	.021/5.2	.000/0.000
9	9	.000/27.3	.012/26.2	.029/23.3	.057/19.0	.117/13.4	.245/9.8	.404/7.9	.351/7.5	.219/8.1	.124/8.3	.070/8.5	.031/8.7	.000/0.000
11	11	.000/27.3	.016/26.2	.036/23.3	.070/19.0	.124/14.3	.226/11.2	.339/9.0	.311/9.0	.200/9.2	.144/9.5	.085/9.2	.039/9.2	.000/0.000
13	13	.000/27.3	.016/26.2	.039/23.3	.066/19.0	.119/15.3	.200/12.6	.284/10.1	.265/10.1	.204/10.5	.134/11.2	.089/11.2	.043/11.2	.000/0.000
15	15	.000/27.3	.016/26.2	.040/23.3	.066/19.0	.119/15.3	.174/13.4	.239/11.6	.231/12.1	.164/11.6	.134/11.6	.087/12.6	.043/12.6	.000/0.000
17	17	.000/27.3	.016/26.2	.038/23.3	.063/19.0	.100/17.0	.132/14.6	.203/12.6	.193/12.6	.163/13.1	.123/12.8	.081/12.8	.040/12.8	.000/0.000
19	19	.000/27.3	.017/26.2	.036/23.3	.059/19.0	.090/15.0	.133/15.7	.175/14.0	.172/14.0	.144/14.6	.110/14.6	.074/14.3	.037/14.3	.000/0.000
21	21	.000/27.3	.016/26.2	.034/23.3	.054/19.0	.080/15.5	.116/16.1	.151/15.7	.150/15.3	.128/15.0	.099/14.6	.067/14.6	.034/14.6	.000/0.000
25	7	.000/0.000	.007/9.0	.013/39.3	.024/26.2	.042/15.5	.247/9.5	.469/6.3	.382/6.3	.187/6.7	.090/7.3	.047/7.5	.021/7.5	.000/0.000
9	9	.000/0.000	.008/37.0	.018/31.4	.051/24.2	.107/15.5	.236/10.5	.403/7.9	.355/7.5	.232/8.1	.137/8.3	.075/8.5	.033/8.7	.000/0.000
11	11	.000/37.0	.011/33.1	.025/29.9	.063/24.2	.115/16.5	.217/11.6	.340/9.0	.321/9.0	.231/9.2	.153/9.5	.091/9.5	.042/9.5	.000/0.000
13	13	.000/34.9	.016/33.1	.031/28.9	.066/24.2	.111/16.5	.217/11.6	.340/9.0	.321/9.0	.231/9.2	.153/9.5	.091/9.5	.042/9.5	.000/0.000
15	15	.000/34.9	.016/33.1	.033/28.9	.065/24.2	.111/16.5	.217/11.6	.340/9.0	.321/9.0	.231/9.2	.153/9.5	.091/9.5	.042/9.5	.000/0.000
17	17	.000/34.9	.016/33.1	.034/28.9	.062/24.2	.109/16.5	.217/11.6	.340/9.0	.321/9.0	.231/9.2	.153/9.5	.091/9.5	.042/9.5	.000/0.000
19	19	.000/34.9	.015/33.1	.033/28.9	.057/24.2	.107/16.5	.217/11.6	.340/9.0	.321/9.0	.231/9.2	.153/9.5	.091/9.5	.042/9.5	.000/0.000
21	21	.000/34.9	.015/33.1	.031/28.9	.053/24.2	.107/16.5	.217/11.6	.340/9.0	.321/9.0	.231/9.2	.153/9.5	.091/9.5	.042/9.5	.000/0.000

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DL 1040

UNCORRECTED
RMS VIEW DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	035/10.4	035/10.4	044/10.5	064/9.8	106/9.8	174/7.4	245/6.7	234/5.3	165/6.3	111/6.8	082/6.7	069/7.0	066/7.0	
	9	086/12.1	086/12.1	099/12.1	122/11.2	161/10.5	213/9.5	254/8.7	244/8.5	203/8.5	160/8.5	132/8.7	117/8.7	112/8.7	
	11	129/14.3	133/13.4	165/13.1	160/12.8	195/12.1	231/11.5	254/11.2	252/10.8	211/10.5	190/10.5	164/10.1	155/10.8	151/10.8	
	13	164/15.7	167/15.7	177/15.3	194/15.0	225/14.5	240/13.7	254/12.6	253/12.1	239/12.1	210/12.8	194/12.6	183/12.6	180/12.6	
	15	189/17.5	191/17.5	194/17.0	212/17.0	225/16.5	240/15.1	254/14.5	253/15.0	239/15.0	224/14.6	203/14.3	201/14.3	201/14.3	
	17	204/19.6	206/19.6	213/19.0	222/19.0	234/18.5	240/18.0	254/17.5	253/17.5	244/17.5	223/17.5	216/16.5	214/16.5	214/16.5	
	19	215/20.3	217/19.6	222/19.5	229/19.5	239/19.0	244/18.5	254/18.0	253/18.0	244/17.5	223/17.5	216/16.5	214/16.5	214/16.5	
10	7	029/14.3	032/14.0	041/12.5	061/11.6	100/9.8	177/8.3	247/6.7	244/5.3	189/6.3	137/6.4	103/6.7	096/7.0	080/7.0	
	9	078/15.0	082/15.0	095/14.0	114/12.8	154/11.6	210/10.1	257/8.7	261/8.3	224/8.1	191/7.9	163/8.1	157/8.1	142/8.1	
	11	125/16.1	129/16.1	141/15.3	162/14.3	191/13.4	229/12.7	254/11.2	261/10.8	240/10.5	214/10.5	194/10.1	181/10.1	177/10.1	
	13	159/18.0	163/18.0	173/17.5	190/15.7	212/14.6	237/13.7	254/12.6	254/12.1	245/12.1	227/12.8	202/12.6	199/12.6	199/12.6	
	15	184/19.6	187/19.6	195/19.0	204/18.5	225/17.5	243/16.3	254/15.7	257/15.0	244/15.0	224/14.6	203/14.3	201/14.3	201/14.3	
	17	204/21.7	202/21.7	209/20.9	214/20.3	231/19.6	243/18.5	254/18.0	253/17.5	244/17.5	223/17.5	216/16.5	214/16.5	214/16.5	
	19	212/22.4	214/21.7	219/21.7	227/20.9	235/19.6	246/19.0	254/18.5	253/18.0	244/17.5	223/17.5	216/16.5	214/16.5	214/16.5	
15	7	021/20.3	029/19.6	038/17.5	058/16.3	094/14.3	173/10.7	247/8.7	251/8.3	202/6.7	152/6.8	117/7.1	097/7.1	091/7.1	
	9	073/20.3	078/19.6	091/17.5	115/15.0	153/12.5	207/10.5	254/8.7	271/8.3	250/7.1	220/7.1	194/7.5	178/7.7	172/7.7	
	11	119/20.3	123/19.6	136/17.5	158/16.1	184/14.6	225/12.8	254/11.2	265/10.8	234/9.6	207/9.2	183/9.2	173/9.2	172/9.2	
	13	154/20.3	157/19.6	164/19.0	185/17.5	204/15.0	231/14.6	254/12.6	265/12.1	234/12.1	207/12.8	183/12.6	173/12.6	172/12.6	
	15	180/21.7	182/21.7	191/20.3	204/19.0	224/17.5	241/15.7	254/15.7	262/15.0	234/15.0	207/15.0	183/14.3	173/14.3	172/14.3	
	17	196/23.1	194/22.4	205/21.7	216/20.3	234/19.0	243/17.5	254/18.0	253/17.5	234/17.5	207/17.5	183/16.5	173/16.5	172/16.5	
	19	204/25.1	211/24.2	216/23.3	224/22.4	234/20.9	243/19.0	254/18.5	253/18.0	234/17.5	207/17.5	183/16.5	173/16.5	172/16.5	
20	7	026/31.4	028/28.6	035/24.2	054/19.0	094/15.4	169/9.2	248/8.7	253/8.5	205/6.7	154/7.3	118/7.3	098/7.3	092/7.5	
	9	071/27.3	074/26.2	086/23.3	110/19.0	151/15.4	205/11.2	254/8.7	279/8.1	253/7.1	224/7.9	199/7.9	194/7.9	194/7.9	
	11	116/27.3	119/26.2	131/23.3	153/19.0	196/15.0	244/12.6	254/11.2	277/10.1	254/9.2	224/9.2	199/8.5	194/8.5	194/8.5	
	13	151/27.3	154/26.2	164/23.3	181/19.0	206/17.5	234/14.6	254/12.6	271/12.1	254/11.2	224/11.2	199/11.2	194/11.2	194/11.2	
	15	177/27.3	179/26.2	187/23.3	201/19.0	220/16.5	240/16.1	254/15.7	267/15.0	234/15.0	207/15.0	183/14.3	173/14.3	172/14.3	
	17	194/27.3	196/26.2	202/23.3	213/22.4	227/20.3	240/18.0	254/18.0	262/17.5	234/17.5	207/17.5	183/16.5	173/16.5	172/16.5	
	19	207/27.3	209/26.2	213/23.3	221/24.2	232/22.4	244/19.6	254/18.5	253/17.5	234/17.5	207/17.5	183/16.5	173/16.5	172/16.5	
25	7	026/18.5	028/16.8	035/14.9	052/12.5	092/10.5	167/10.1	251/8.7	252/8.5	201/7.1	147/7.1	110/7.5	090/7.7	084/7.9	
	9	069/19.9	072/19.9	084/18.3	106/16.8	144/15.5	204/11.6	252/8.7	285/8.1	254/7.7	224/7.9	199/7.9	194/7.9	194/7.9	
	11	114/20.3	117/19.6	129/18.3	151/16.8	183/15.5	234/13.4	254/12.6	277/12.1	254/11.2	224/11.2	199/11.2	194/11.2	194/11.2	
	13	149/21.7	153/21.7	165/20.3	187/19.0	206/17.5	234/14.6	254/15.7	267/15.0	234/15.0	207/15.0	183/14.3	173/14.3	172/14.3	
	15	176/23.1	178/23.1	186/21.7	201/20.3	220/19.0	240/18.0	254/18.0	262/17.5	234/17.5	207/17.5	183/16.5	173/16.5	172/16.5	
	17	193/24.9	196/24.9	202/23.3	211/22.4	226/21.7	244/19.6	254/18.5	253/17.5	234/17.5	207/17.5	183/16.5	173/16.5	172/16.5	
	19	206/26.4	209/26.4	213/24.2	221/24.2	232/22.4	244/19.6	254/18.5	253/17.5	234/17.5	207/17.5	183/16.5	173/16.5	172/16.5	
NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUTUAL WAVE PERIOD IN SECONDS.															

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040														
LONGESTED														
HMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD. T. IN SECONDS														
CENTER OF GRAVITY - 194.3 FT FORWARD OF AP AND 16.0 FT FROM BL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	020/10.8	022/10.8	024/10.5	024/10.5	024/10.5	024/10.5	024/10.5	024/10.5	024/10.5	024/10.5	024/10.5	024/10.5	024/10.5
9	9	022/12.1	024/12.1	026/12.1	026/12.1	026/12.1	026/12.1	026/12.1	026/12.1	026/12.1	026/12.1	026/12.1	026/12.1	026/12.1
11	11	024/13.4	026/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4
13	13	026/14.7	028/14.7	030/14.7	030/14.7	030/14.7	030/14.7	030/14.7	030/14.7	030/14.7	030/14.7	030/14.7	030/14.7	030/14.7
15	15	028/16.0	030/16.0	032/16.0	032/16.0	032/16.0	032/16.0	032/16.0	032/16.0	032/16.0	032/16.0	032/16.0	032/16.0	032/16.0
17	17	030/17.3	032/17.3	034/17.3	034/17.3	034/17.3	034/17.3	034/17.3	034/17.3	034/17.3	034/17.3	034/17.3	034/17.3	034/17.3
19	19	032/18.6	034/18.6	036/18.6	036/18.6	036/18.6	036/18.6	036/18.6	036/18.6	036/18.6	036/18.6	036/18.6	036/18.6	036/18.6
21	21	034/19.9	036/19.9	038/19.9	038/19.9	038/19.9	038/19.9	038/19.9	038/19.9	038/19.9	038/19.9	038/19.9	038/19.9	038/19.9
10	7	013/14.0	015/13.7	020/12.8	020/12.8	020/12.8	020/12.8	020/12.8	020/12.8	020/12.8	020/12.8	020/12.8	020/12.8	020/12.8
9	9	015/15.3	017/15.0	022/14.1	022/14.1	022/14.1	022/14.1	022/14.1	022/14.1	022/14.1	022/14.1	022/14.1	022/14.1	022/14.1
11	11	017/16.6	019/16.3	024/13.0	024/13.0	024/13.0	024/13.0	024/13.0	024/13.0	024/13.0	024/13.0	024/13.0	024/13.0	024/13.0
13	13	019/17.9	021/17.6	026/14.3	026/14.3	026/14.3	026/14.3	026/14.3	026/14.3	026/14.3	026/14.3	026/14.3	026/14.3	026/14.3
15	15	021/19.2	023/18.9	028/15.5	028/15.5	028/15.5	028/15.5	028/15.5	028/15.5	028/15.5	028/15.5	028/15.5	028/15.5	028/15.5
17	17	023/20.5	025/20.2	030/17.0	030/17.0	030/17.0	030/17.0	030/17.0	030/17.0	030/17.0	030/17.0	030/17.0	030/17.0	030/17.0
19	19	025/21.8	027/21.5	032/18.3	032/18.3	032/18.3	032/18.3	032/18.3	032/18.3	032/18.3	032/18.3	032/18.3	032/18.3	032/18.3
21	21	027/23.1	029/22.8	034/19.8	034/19.8	034/19.8	034/19.8	034/19.8	034/19.8	034/19.8	034/19.8	034/19.8	034/19.8	034/19.8
15	7	008/20.3	009/19.6	014/17.5	014/17.5	014/17.5	014/17.5	014/17.5	014/17.5	014/17.5	014/17.5	014/17.5	014/17.5	014/17.5
11	11	010/21.6	011/20.9	016/18.8	016/18.8	016/18.8	016/18.8	016/18.8	016/18.8	016/18.8	016/18.8	016/18.8	016/18.8	016/18.8
13	13	012/22.9	013/22.2	018/20.1	018/20.1	018/20.1	018/20.1	018/20.1	018/20.1	018/20.1	018/20.1	018/20.1	018/20.1	018/20.1
15	15	014/24.2	015/23.5	020/21.4	020/21.4	020/21.4	020/21.4	020/21.4	020/21.4	020/21.4	020/21.4	020/21.4	020/21.4	020/21.4
17	17	016/25.5	017/24.8	022/22.7	022/22.7	022/22.7	022/22.7	022/22.7	022/22.7	022/22.7	022/22.7	022/22.7	022/22.7	022/22.7
19	19	018/26.8	019/26.1	024/24.0	024/24.0	024/24.0	024/24.0	024/24.0	024/24.0	024/24.0	024/24.0	024/24.0	024/24.0	024/24.0
21	21	020/28.1	021/27.4	026/25.3	026/25.3	026/25.3	026/25.3	026/25.3	026/25.3	026/25.3	026/25.3	026/25.3	026/25.3	026/25.3
20	7	006/29.9	007/29.2	009/28.4	009/28.4	009/28.4	009/28.4	009/28.4	009/28.4	009/28.4	009/28.4	009/28.4	009/28.4	009/28.4
11	11	015/27.3	016/26.6	023/23.2	023/23.2	023/23.2	023/23.2	023/23.2	023/23.2	023/23.2	023/23.2	023/23.2	023/23.2	023/23.2
13	13	017/28.6	018/27.9	025/24.5	025/24.5	025/24.5	025/24.5	025/24.5	025/24.5	025/24.5	025/24.5	025/24.5	025/24.5	025/24.5
15	15	019/29.9	020/29.2	027/25.4	027/25.4	027/25.4	027/25.4	027/25.4	027/25.4	027/25.4	027/25.4	027/25.4	027/25.4	027/25.4
17	17	021/31.2	022/30.5	029/26.7	029/26.7	029/26.7	029/26.7	029/26.7	029/26.7	029/26.7	029/26.7	029/26.7	029/26.7	029/26.7
19	19	023/32.5	024/31.8	031/28.0	031/28.0	031/28.0	031/28.0	031/28.0	031/28.0	031/28.0	031/28.0	031/28.0	031/28.0	031/28.0
21	21	025/33.8	026/33.1	033/29.3	033/29.3	033/29.3	033/29.3	033/29.3	033/29.3	033/29.3	033/29.3	033/29.3	033/29.3	033/29.3
25	7	008/7.3	009/6.6	014/5.5	014/5.5	014/5.5	014/5.5	014/5.5	014/5.5	014/5.5	014/5.5	014/5.5	014/5.5	014/5.5
9	9	010/8.6	011/7.9	016/6.8	016/6.8	016/6.8	016/6.8	016/6.8	016/6.8	016/6.8	016/6.8	016/6.8	016/6.8	016/6.8
11	11	012/9.9	013/9.2	018/8.1	018/8.1	018/8.1	018/8.1	018/8.1	018/8.1	018/8.1	018/8.1	018/8.1	018/8.1	018/8.1
13	13	014/11.2	015/10.5	020/9.0	020/9.0	020/9.0	020/9.0	020/9.0	020/9.0	020/9.0	020/9.0	020/9.0	020/9.0	020/9.0
15	15	016/12.5	017/11.8	022/10.3	022/10.3	022/10.3	022/10.3	022/10.3	022/10.3	022/10.3	022/10.3	022/10.3	022/10.3	022/10.3
17	17	018/13.8	019/13.1	024/11.6	024/11.6	024/11.6	024/11.6	024/11.6	024/11.6	024/11.6	024/11.6	024/11.6	024/11.6	024/11.6
19	19	020/15.1	021/14.4	026/12.5	026/12.5	026/12.5	026/12.5	026/12.5	026/12.5	026/12.5	026/12.5	026/12.5	026/12.5	026/12.5
21	21	022/16.4	023/15.7	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4	028/13.4

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

QMS VEH ACC IN G*5/ENCOUNTERED MODAL PERIOD, T^{OE}, IN SECONDS

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

C

DE 1040														
LONGESTED														
WMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OF														
AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM HL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/8.7	.031/10.5	.064/9.0	.107/8.7	.173/8.1	.228/7.0	.153/7.0	.230/6.3	.198/6.3	.127/6.4	.071/6.7	.032/7.0	.000/0.0
9	9	.000/8.7	.043/11.2	.087/10.5	.132/8.7	.182/8.3	.206/7.0	.144/7.0	.199/7.3	.177/7.1	.144/7.3	.094/7.5	.046/7.7	.000/0.0
11	11	.000/12.1	.049/12.1	.094/12.1	.134/11.2	.167/8.5	.175/8.3	.130/8.5	.166/8.1	.172/7.7	.134/7.9	.093/8.1	.047/8.3	.000/0.0
13	13	.000/13.4	.044/13.1	.091/13.1	.125/12.6	.149/12.1	.150/8.3	.118/12.6	.141/12.1	.147/7.9	.123/8.1	.085/8.1	.044/8.3	.000/0.0
15	15	.000/14.3	.045/14.3	.085/14.0	.113/13.7	.132/13.4	.132/13.4	.104/14.3	.123/13.4	.128/13.1	.104/11.6	.077/12.6	.040/8.3	.000/0.0
17	17	.000/14.6	.041/14.6	.077/14.3	.103/13.0	.118/13.0	.117/13.0	.100/13.7	.110/13.4	.112/13.4	.095/12.8	.069/12.8	.036/12.6	.000/0.0
19	19	.000/15.7	.037/15.7	.069/15.7	.093/15.3	.105/15.3	.105/15.3	.093/15.0	.098/15.0	.100/15.0	.085/14.6	.062/14.3	.032/14.3	.000/0.0
21	21	.000/17.5	.033/17.5	.062/17.5	.084/17.0	.095/16.5	.095/16.5	.087/16.5	.090/17.5	.090/17.5	.077/16.5	.056/16.5	.029/16.5	.000/0.0
10	7	.000/13.7	.031/13.4	.067/12.1	.110/10.8	.172/8.7	.206/7.3	.147/7.0	.219/6.3	.188/6.3	.121/6.4	.067/6.7	.030/7.0	.000/0.0
9	9	.000/14.0	.049/13.7	.100/12.8	.146/11.6	.183/9.2	.206/8.1	.140/7.9	.191/7.0	.190/7.1	.144/7.5	.092/7.5	.045/7.7	.000/0.0
11	11	.000/14.6	.055/14.3	.108/13.7	.149/12.6	.171/12.1	.175/8.3	.127/8.3	.161/8.3	.167/7.9	.136/8.3	.092/8.3	.047/8.3	.000/0.0
13	13	.000/15.0	.054/15.0	.103/14.3	.138/13.1	.154/12.6	.156/12.6	.116/12.6	.137/12.1	.143/8.5	.120/8.5	.084/8.5	.043/8.5	.000/0.0
15	15	.000/15.3	.049/15.3	.093/14.6	.125/14.3	.137/14.3	.133/14.6	.107/14.0	.120/13.4	.123/13.1	.105/8.7	.075/9.0	.034/9.0	.000/0.0
17	17	.000/16.1	.044/15.7	.083/15.3	.111/15.3	.122/15.7	.114/15.3	.100/15.7	.107/15.3	.108/15.0	.092/13.1	.066/12.8	.034/9.0	.000/0.0
19	19	.000/16.1	.039/15.5	.074/15.1	.110/17.5	.107/17.5	.107/17.0	.092/17.0	.096/17.5	.096/17.5	.082/14.6	.059/14.3	.031/14.3	.000/0.0
21	21	.000/17.0	.035/17.0	.067/17.5	.089/16.0	.099/16.5	.098/16.0	.086/16.0	.088/17.5	.086/17.5	.073/17.0	.053/16.5	.028/16.5	.000/0.0
15	7	.000/20.3	.033/19.6	.077/17.5	.132/14.3	.180/10.5	.223/7.9	.143/7.0	.207/5.7	.177/5.3	.114/6.4	.063/6.7	.028/6.7	.000/0.0
9	9	.000/20.3	.052/19.6	.110/17.5	.167/14.3	.195/11.2	.204/8.3	.138/7.9	.183/7.9	.180/7.5	.136/7.7	.088/7.9	.043/7.9	.000/0.0
11	11	.000/20.3	.057/19.6	.115/17.5	.165/14.3	.183/12.1	.175/8.5	.126/8.7	.155/8.7	.160/7.9	.116/8.3	.090/8.5	.046/8.7	.000/0.0
13	13	.000/20.3	.054/19.6	.108/17.5	.151/14.3	.164/12.8	.153/12.8	.116/12.6	.133/9.2	.137/8.7	.116/9.2	.082/9.2	.042/9.2	.000/0.0
15	15	.000/20.3	.049/19.6	.097/17.5	.134/14.3	.145/14.3	.135/14.3	.107/14.0	.116/13.7	.118/9.2	.101/9.2	.072/9.2	.038/9.8	.000/0.0
17	17	.000/20.3	.044/19.6	.086/17.5	.118/14.3	.128/15.7	.121/15.7	.100/15.7	.104/15.3	.104/15.0	.084/14.6	.064/10.1	.033/9.8	.000/0.0
19	19	.000/20.3	.039/19.6	.076/17.5	.104/14.3	.114/17.0	.109/17.0	.093/18.0	.094/17.5	.092/17.0	.078/14.6	.057/14.6	.030/9.8	.000/0.0
21	21	.000/20.3	.035/19.6	.068/17.5	.093/14.3	.103/16.5	.098/19.0	.087/18.0	.086/17.5	.083/17.5	.070/17.0	.051/16.5	.027/16.5	.000/0.0
20	7	.000/0.0	.030/34.9	.072/26.2	.130/19.0	.202/13.4	.223/8.3	.141/7.0	.194/5.7	.167/6.3	.106/6.4	.060/6.7	.026/7.0	.000/0.0
9	9	.000/0.0	.047/27.3	.101/23.3	.163/19.0	.215/13.4	.201/8.5	.137/8.3	.176/7.5	.173/7.7	.131/7.7	.085/7.7	.041/7.9	.000/0.0
11	11	.000/27.3	.052/26.2	.105/23.3	.165/19.0	.177/13.4	.174/11.6	.126/8.7	.151/9.0	.154/8.3	.126/8.5	.087/8.7	.047/9.0	.000/0.0
13	13	.000/27.3	.050/26.2	.099/23.3	.150/19.0	.174/13.4	.153/13.4	.116/12.6	.129/9.8	.134/9.2	.112/9.0	.079/9.2	.047/9.2	.000/0.0
15	15	.000/27.3	.047/26.2	.090/23.3	.137/19.0	.153/13.4	.136/13.4	.107/14.0	.113/13.7	.114/9.8	.097/9.5	.070/10.1	.037/10.1	.000/0.0
17	17	.000/27.3	.042/26.2	.082/23.3	.117/19.0	.134/13.4	.128/13.4	.100/15.7	.101/15.3	.100/15.0	.085/10.5	.061/10.1	.032/10.1	.000/0.0
19	19	.000/27.3	.039/26.2	.073/23.3	.104/19.0	.119/13.4	.109/17.5	.093/18.0	.092/17.5	.092/17.5	.078/16.5	.054/10.1	.028/10.1	.000/0.0
21	21	.000/27.3	.035/26.2	.067/23.3	.094/19.0	.107/13.4	.100/19.6	.087/18.0	.084/18.0	.080/17.5	.067/17.0	.048/16.5	.025/16.5	.000/0.0
25	7	.000/0.0	.019/0.0	.040/48.3	.102/28.0	.203/16.5	.214/8.7	.140/7.0	.188/5.7	.155/6.3	.098/6.8	.055/6.7	.024/7.0	.000/0.0
9	9	.000/0.0	.029/44.9	.064/33.1	.139/24.2	.216/16.5	.194/9.0	.137/8.3	.169/7.5	.162/7.1	.123/7.3	.080/7.5	.039/7.7	.000/0.0
11	11	.000/0.0	.036/33.1	.076/29.9	.144/24.2	.199/16.5	.172/12.1	.126/8.7	.146/9.2	.146/8.5	.120/9.0	.083/9.0	.042/9.0	.000/0.0
13	13	.000/0.0	.040/33.1	.079/29.9	.136/24.2	.176/16.5	.153/14.0	.116/12.6	.126/10.1	.127/9.2	.107/9.0	.076/9.2	.040/9.8	.000/0.0
15	15	.000/0.0	.040/33.1	.077/29.9	.124/24.2	.155/16.5	.136/15.3	.107/14.0	.110/13.7	.109/10.8	.093/10.1	.067/10.1	.036/10.1	.000/0.0
17	17	.000/0.0	.039/33.1	.073/29.9	.113/24.2	.136/16.5	.113/16.5	.100/15.7	.099/15.3	.095/15.0	.082/11.2	.059/11.2	.031/11.2	.000/0.0
19	19	.000/0.0	.037/33.1	.068/29.9	.102/24.2	.121/16.5	.111/18.0	.089/17.5	.089/17.5	.085/17.0	.075/17.0	.052/17.0	.028/17.0	.000/0.0
21	21	.000/0.0	.034/33.1	.064/29.9	.093/24.2	.109/16.5	.101/20.3	.087/18.0	.082/18.0	.076/19.6	.064/17.0	.046/16.5	.025/16.5	.000/0.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

LUNGE-CRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	124/10.5	130/10.5	152/9.9	192/7.2	252/5.1	306/6.7	221/7.3	247/6.5	269/6.3	232/6.8	191/6.7	167/7.0	159/7.0	
	9	217/11.6	233/11.2	239/10.9	264/10.5	299/9.5	295/9.0	233/9.0	266/8.3	308/7.7	304/7.7	245/7.9	269/8.1	264/8.1	
	11	270/12.6	273/12.5	291/12.1	290/11.9	294/11.2	282/11.2	240/11.2	267/10.8	308/9.5	320/9.2	318/9.2	312/9.2	310/9.0	
	13	291/14.3	292/14.3	294/14.0	294/13.7	289/13.4	272/13.1	245/12.5	266/12.1	298/11.5	316/11.2	321/11.2	322/11.2	322/11.2	
	15	296/15.7	296/15.7	295/15.7	294/15.3	282/15.0	260/14.6	247/14.7	262/13.5	289/13.4	306/12.8	315/12.8	318/12.8	319/12.8	
	17	293/17.5	292/17.5	290/17.5	284/17.0	275/16.5	261/16.5	248/16.0	259/15.5	280/15.0	295/14.6	304/14.6	309/14.3	311/14.3	
	19	288/19.6	287/19.6	284/19.6	278/19.0	269/18.5	256/18.5	244/18.0	256/17.5	273/17.5	286/17.0	295/16.5	300/16.5	301/16.5	
10	21	283/22.4	282/22.4	279/22.4	274/21.7	265/21.7	251/20.9	239/20.9	256/20.3	269/20.3	280/19.6	288/19.6	292/19.0	293/19.0	
	7	105/13.4	111/13.4	130/12.6	164/10.8	213/9.2	265/7.5	206/7.0	225/6.5	233/6.7	203/6.8	172/6.7	152/7.0	145/7.0	
	9	192/14.3	197/14.0	212/13.4	234/12.1	255/10.8	293/9.5	220/9.0	247/8.3	279/7.9	278/7.9	264/8.1	252/8.1	248/8.1	
	11	243/15.3	246/15.0	253/14.3	262/13.3	266/12.1	253/11.6	238/11.2	250/10.8	284/9.5	294/9.2	294/9.2	295/9.2	294/9.2	
	13	265/16.1	266/16.1	269/15.3	270/15.3	263/14.3	243/13.4	233/12.5	250/12.1	274/11.5	296/11.2	304/11.2	306/11.2	305/11.2	
	15	273/18.0	273/18.0	272/17.5	270/17.5	263/15.7	241/15.0	237/15.7	249/15.0	272/13.4	289/13.1	299/12.8	303/12.6	304/12.6	
	17	272/19.6	272/19.6	270/19.0	266/18.5	258/18.0	244/18.5	238/18.0	247/17.5	266/17.0	281/14.6	290/14.6	296/14.3	297/14.3	
15	19	270/21.7	269/21.7	267/20.9	262/20.9	255/19.6	240/19.0	230/18.0	246/17.5	261/17.5	274/17.0	282/16.5	287/16.5	289/16.5	
	21	268/24.2	267/24.2	264/24.2	260/23.3	254/22.4	241/21.7	230/20.9	247/20.3	258/20.3	269/19.6	277/19.6	281/19.6	283/19.0	
	7	99/20.3	109/19.6	113/17.5	144/14.3	189/10.8	233/8.1	195/7.0	214/6.5	212/6.7	181/6.8	151/7.1	132/7.0	126/7.0	
	9	171/20.3	175/19.6	188/17.5	209/14.3	231/12.1	237/10.5	209/9.0	236/8.5	258/8.1	254/8.1	241/8.1	230/8.3	226/8.3	
	11	242/20.3	243/19.6	245/17.5	247/16.5	244/15.3	237/14.1	218/11.2	239/10.8	267/9.8	277/9.5	277/9.5	274/9.2	273/9.2	
	13	251/20.3	251/19.6	251/17.5	250/16.5	245/15.0	236/14.1	223/12.5	239/12.1	264/11.5	278/11.6	284/11.2	286/11.2	284/11.2	
	15	254/20.3	253/19.6	252/17.5	249/16.5	241/15.0	231/14.1	219/11.2	239/10.5	259/10.5	274/10.5	282/10.5	280/10.5	278/10.5	
20	17	253/20.3	253/20.3	251/20.3	247/20.3	242/20.3	235/19.6	229/18.0	238/17.5	250/17.5	262/17.0	269/16.5	274/16.5	275/16.5	
	19	253/20.3	253/20.3	251/20.3	247/20.3	242/20.3	235/19.6	229/18.0	238/17.5	250/17.5	262/17.0	269/16.5	274/16.5	275/16.5	
	21	253/20.3	253/20.3	251/20.3	247/20.3	242/20.3	235/19.6	229/18.0	238/17.5	250/17.5	262/17.0	269/16.5	274/16.5	275/16.5	
	7	90/23.4	99/23.1	104/22.6	127/19.0	170/13.4	204/8.7	165/7.0	211/6.5	203/6.7	170/6.8	140/7.1	122/7.1	116/7.1	
	9	159/27.3	162/26.2	170/23.3	185/19.0	209/13.4	217/10.8	200/9.0	231/8.5	249/8.1	243/7.9	228/8.1	217/8.1	213/8.1	
	11	202/27.3	203/26.2	205/23.3	224/19.0	243/13.4	260/12.6	209/11.2	233/10.8	257/9.8	265/9.5	263/9.2	259/9.2	258/9.2	
	13	233/27.3	233/26.2	233/23.3	249/19.0	267/15.1	281/14.1	214/12.6	232/12.1	254/12.1	265/11.6	271/11.2	272/11.2	272/11.2	
25	15	237/27.3	236/26.2	236/23.3	254/19.0	268/15.5	283/16.1	218/15.7	232/15.3	250/14.6	262/14.6	269/14.6	272/14.6	273/14.6	
	17	237/27.3	236/26.2	236/23.3	254/19.0	268/15.5	283/16.1	218/15.7	232/15.3	250/14.6	262/14.6	269/14.6	272/14.6	273/14.6	
	19	238/27.3	237/26.2	237/23.3	255/20.3	269/16.5	284/16.5	220/18.0	230/17.5	245/17.0	252/17.0	258/16.5	264/16.5	264/16.5	
	21	239/27.3	239/26.2	236/23.3	253/20.3	267/16.5	282/16.5	220/18.0	230/17.5	245/17.0	252/17.0	258/16.5	264/16.5	264/16.5	
	7	83/23.4	90/23.1	95/23.1	115/21.7	150/16.5	191/8.7	177/7.0	211/6.5	200/6.7	165/6.8	134/7.1	115/7.3	109/7.3	
	9	144/27.3	149/26.2	153/23.3	164/22.4	186/16.5	201/11.6	193/9.0	231/8.3	249/7.7	242/7.7	227/7.9	215/7.9	211/7.9	
	11	182/27.3	185/26.2	185/23.3	190/22.4	200/16.5	205/13.1	206/12.6	229/12.1	256/9.8	262/9.5	260/9.2	257/9.2	257/9.2	
	13	202/27.3	202/26.2	202/23.3	202/22.4	206/15.5	208/14.1	206/12.6	229/12.1	256/9.8	262/9.5	260/9.2	257/9.2	257/9.2	
	15	212/27.3	212/26.2	211/23.3	213/22.4	210/16.5	210/15.5	212/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6	
	17	217/27.3	217/26.2	217/23.3	218/22.4	212/16.5	212/15.5	212/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6	
	19	220/27.3	220/26.2	220/23.3	221/22.4	214/16.5	214/15.5	214/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6	
	21	223/27.3	223/26.2	223/23.3	224/22.4	217/16.5	217/15.5	217/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6	
	7	83/23.4	90/23.1	95/23.1	115/21.7	150/16.5	191/8.7	177/7.0	211/6.5	200/6.7	165/6.8	134/7.1	115/7.3	109/7.3	
	9	144/27.3	149/26.2	153/23.3	164/22.4	186/16.5	201/11.6	193/9.0	231/8.3	249/7.7	242/7.7	227/7.9	215/7.9	211/7.9	
11	182/27.3	185/26.2	185/23.3	190/22.4	200/16.5	205/13.1	206/12.6	229/12.1	256/9.8	262/9.5	260/9.2	257/9.2	257/9.2		
13	202/27.3	202/26.2	202/23.3	202/22.4	206/15.5	208/14.1	206/12.6	229/12.1	256/9.8	262/9.5	260/9.2	257/9.2	257/9.2		
15	212/27.3	212/26.2	211/23.3	213/22.4	210/16.5	210/15.5	212/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6		
17	217/27.3	217/26.2	217/23.3	218/22.4	212/16.5	212/15.5	212/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6		
19	220/27.3	220/26.2	220/23.3	221/22.4	214/16.5	214/15.5	214/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6		
21	223/27.3	223/26.2	223/23.3	224/22.4	217/16.5	217/15.5	217/15.7	227/15.3	245/14.6	251/14.6	251/14.6	251/14.6	251/14.6		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

		SHIP HEADINGS ANGLE IN DEGREES															
		DE 1040															
		LONGESTED															
		RMS VER VEL IN FPS/COUNTERED MODAL PERIOD, T, IN SECONDS															
		OE															
		AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM BL															
V	T	SHIP HEADINGS ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	.79/10.5	.084/10.1	.102/9.5	.138/8.7	.205/7.7	.300/6.3	.235/5.2	.259/6.3	.275/6.3	.230/6.4	.187/6.5	.163/6.5	.155/6.5	.151/6.5	.147/6.5	.143/6.5
9	9	.121/11.2	.126/11.2	.141/10.5	.167/9.8	.208/8.7	.251/7.1	.277/7.9	.237/7.0	.275/6.7	.263/7.3	.241/7.3	.225/7.5	.219/7.5	.215/7.5	.211/7.5	.207/7.5
11	11	.138/12.1	.141/12.1	.151/11.6	.167/10.9	.188/10.1	.204/9.2	.177/10.1	.206/8.5	.243/7.7	.247/7.9	.239/8.1	.232/8.3	.229/8.3	.225/8.3	.221/8.3	.217/8.3
13	13	.137/13.4	.139/13.1	.145/12.5	.155/11.6	.166/11.2	.176/11.6	.155/11.6	.174/10.4	.209/9.2	.214/9.0	.214/9.0	.214/9.0	.214/9.0	.214/9.0	.214/9.0	.214/9.0
15	15	.129/14.3	.131/14.3	.134/14.0	.140/13.7	.147/13.4	.152/13.1	.138/12.6	.158/12.1	.191/10.5	.191/10.5	.194/10.5	.194/10.5	.194/10.5	.194/10.5	.194/10.5	.194/10.5
17	17	.119/15.7	.120/15.7	.123/15.3	.128/15.3	.130/15.0	.134/14.6	.123/15.7	.137/13.7	.157/13.1	.167/12.8	.171/11.6	.173/11.2	.173/11.2	.173/11.2	.173/11.2	.173/11.2
19	19	.104/17.5	.110/17.5	.112/17.0	.114/17.0	.116/16.5	.118/16.5	.114/17.0	.122/15.7	.139/15.0	.148/14.6	.152/14.3	.154/14.3	.154/14.3	.154/14.3	.154/14.3	.154/14.3
21	21	.101/19.6	.102/19.6	.102/19.6	.104/19.0	.105/18.5	.107/18.5	.102/18.0	.111/17.5	.124/17.0	.131/16.5	.135/16.5	.137/16.5	.137/16.5	.137/16.5	.137/16.5	.137/16.5
10	7	.448/13.4	.052/13.1	.055/12.1	.094/10.8	.147/9.0	.234/6.7	.218/6.5	.243/6.3	.259/6.3	.224/6.4	.189/6.7	.168/6.5	.162/6.5	.158/6.5	.154/6.5	.150/6.5
9	9	.82/14.3	.086/14.0	.099/13.1	.123/11.6	.157/10.1	.205/8.1	.191/7.9	.230/7.3	.257/7.3	.266/7.3	.252/7.5	.240/7.7	.236/7.7	.232/7.7	.228/7.7	.224/7.7
11	11	.088/15.0	.102/14.6	.111/14.0	.127/12.6	.148/11.2	.175/10.5	.167/10.1	.201/8.7	.239/8.1	.252/8.1	.252/8.3	.249/8.3	.247/8.3	.243/8.3	.239/8.3	.235/8.3
13	13	.102/15.7	.104/15.7	.111/14.6	.121/13.7	.135/12.6	.151/12.1	.147/11.6	.174/10.8	.208/9.2	.224/9.0	.230/9.2	.231/9.0	.231/9.0	.231/9.0	.231/9.0	.231/9.0
15	15	.099/17.0	.100/16.5	.105/16.1	.113/15.3	.122/14.5	.132/13.7	.131/12.6	.152/12.1	.180/11.6	.196/10.5	.204/10.1	.207/10.1	.204/10.1	.204/10.1	.204/10.1	.204/10.1
17	17	.093/18.0	.094/18.0	.098/17.5	.103/16.5	.110/15.7	.117/15.0	.118/15.7	.135/13.7	.157/13.1	.172/12.8	.180/12.6	.184/12.6	.184/12.6	.184/12.6	.184/12.6	.184/12.6
19	19	.087/19.6	.088/19.6	.091/19.0	.095/18.5	.100/18.5	.106/18.0	.107/18.7	.120/17.5	.139/16.5	.152/16.5	.159/16.5	.163/16.5	.163/16.5	.163/16.5	.163/16.5	.163/16.5
21	21	.081/21.7	.082/21.7	.084/20.9	.087/20.3	.091/19.5	.096/19.0	.098/18.0	.109/17.5	.124/17.0	.135/16.5	.142/16.5	.145/16.1	.147/16.1	.147/16.1	.147/16.1	.147/16.1
15	7	.27/20.3	.030/19.6	.040/17.5	.063/14.3	.108/10.5	.184/7.5	.203/6.5	.250/5.7	.255/6.3	.219/6.4	.185/6.7	.164/6.5	.157/7.0	.153/7.0	.149/7.0	.145/7.0
9	9	.53/20.3	.056/19.6	.067/17.5	.089/14.3	.122/11.2	.164/9.0	.180/7.9	.231/7.5	.257/7.5	.266/7.3	.254/7.5	.243/7.7	.239/7.7	.235/7.7	.231/7.7	.227/7.7
11	11	.67/20.3	.070/19.6	.079/17.5	.096/14.3	.119/12.6	.147/11.2	.158/10.1	.201/8.7	.240/8.3	.255/8.3	.257/8.3	.255/8.5	.255/8.5	.255/8.5	.255/8.5	.255/8.5
13	13	.73/20.3	.075/19.6	.082/17.5	.094/14.3	.111/13.7	.136/12.8	.145/11.6	.174/10.8	.209/9.2	.227/9.2	.236/9.2	.239/9.2	.239/9.2	.239/9.2	.239/9.2	.239/9.2
15	15	.73/20.3	.075/19.6	.080/17.5	.090/16.5	.102/15.7	.116/14.0	.125/14.0	.152/12.6	.191/11.6	.199/10.5	.209/10.1	.214/10.1	.214/10.1	.214/10.1	.214/10.1	.214/10.1
17	17	.71/20.3	.073/19.6	.077/17.5	.084/14.3	.093/14.0	.104/12.8	.112/12.1	.134/11.6	.158/11.2	.175/10.8	.185/10.5	.190/10.1	.192/10.1	.192/10.1	.192/10.1	.192/10.1
19	19	.68/20.3	.069/19.6	.073/17.5	.078/20.3	.086/19.0	.095/17.5	.102/15.7	.120/15.3	.140/15.0	.154/14.6	.164/14.3	.169/14.3	.170/14.0	.170/14.0	.170/14.0	.170/14.0
21	21	.65/20.3	.066/19.6	.069/23.3	.074/22.4	.080/20.9	.087/19.6	.094/18.0	.108/17.5	.125/17.0	.138/16.5	.146/16.5	.151/16.1	.152/16.1	.152/16.1	.152/16.1	.152/16.1
20	7	.16/33.1	.017/29.9	.023/25.1	.034/19.0	.079/13.4	.152/8.1	.191/6.5	.254/6.3	.251/6.3	.224/6.4	.188/6.7	.165/7.0	.157/7.0	.153/7.0	.149/7.0	.145/7.0
9	9	.31/27.3	.034/25.2	.042/23.3	.060/19.0	.094/13.4	.140/9.8	.171/7.9	.238/6.5	.276/6.7	.277/7.3	.265/7.3	.254/7.5	.250/7.5	.246/7.5	.242/7.5	.238/7.5
11	11	.44/27.3	.046/26.2	.054/23.3	.069/19.0	.094/13.4	.125/11.6	.151/10.1	.205/8.7	.248/7.9	.267/7.9	.269/8.1	.267/8.3	.266/8.3	.266/8.3	.266/8.3	.266/8.3
13	13	.50/27.3	.052/26.2	.059/23.3	.071/19.0	.090/13.4	.119/13.4	.133/11.6	.176/10.8	.215/9.5	.236/9.2	.246/9.2	.249/9.2	.250/9.0	.250/9.0	.250/9.0	.250/9.0
15	15	.53/27.3	.055/26.2	.060/23.3	.070/19.0	.084/13.4	.106/16.6	.119/14.0	.153/12.6	.186/11.6	.207/10.5	.218/10.5	.224/10.1	.225/10.1	.225/10.1	.225/10.1	.225/10.1
17	17	.53/27.3	.055/26.2	.059/23.3	.067/19.0	.079/18.5	.093/17.5	.108/15.7	.135/15.0	.162/14.6	.181/12.8	.192/12.6	.198/12.6	.200/12.2	.200/12.2	.200/12.2	.200/12.2
19	19	.53/27.3	.054/26.2	.059/23.3	.064/19.0	.074/20.3	.086/19.6	.098/18.0	.120/15.3	.143/15.0	.159/14.6	.170/14.3	.176/14.3	.177/14.0	.177/14.0	.177/14.0	.177/14.0
21	21	.51/27.3	.053/26.2	.056/23.3	.061/19.0	.069/21.7	.074/19.6	.090/18.0	.108/17.5	.127/17.0	.142/17.0	.151/16.5	.156/16.1	.158/16.1	.158/16.1	.158/16.1	.158/16.1
25	7	.19/41.3	.018/41.1	.019/41.9	.023/26.2	.054/16.5	.124/8.7	.181/6.3	.254/6.3	.270/6.5	.231/6.8	.191/7.1	.167/7.1	.159/7.1	.155/7.1	.151/7.1	.147/7.1
9	9	.19/41.9	.020/39.3	.025/31.4	.034/24.9	.064/16.5	.118/8.7	.164/7.9	.248/6.5	.293/7.0	.297/7.3	.285/7.5	.273/7.7	.269/7.7	.265/7.7	.261/7.7	.257/7.7
11	11	.26/34.9	.028/33.1	.034/29.9	.041/24.9	.071/16.5	.114/12.1	.145/10.1	.213/8.5	.263/7.7	.267/7.7	.260/7.9	.250/8.1	.246/8.1	.242/8.1	.238/8.1	.234/8.1
13	13	.32/34.9	.036/33.1	.043/29.9	.051/24.9	.071/16.5	.109/11.6	.128/11.6	.182/10.1	.227/9.2	.259/10.5	.264/10.1	.264/10.1	.264/10.1	.264/10.1	.264/10.1	.264/10.1
15	15	.36/34.9	.038/33.1	.043/29.9	.051/24.9	.069/16.5	.091/15.3	.115/14.0	.157/12.6	.195/11.6	.219/10.5	.233/10.1	.240/10.1	.242/9.8	.242/9.8	.242/9.8	.242/9.8
17	17	.38/34.9	.040/33.1	.044/29.9	.051/24.9	.066/16.5	.084/15.7	.104/14.0	.137/13.7	.169/13.1	.191/12.8	.204/12.6	.211/12.2	.211/12.2	.211/12.2	.211/12.2	.211/12.2
19	19	.39/34.9	.040/33.1	.045/29.9	.051/24.9	.063/16.5	.076/20.3	.094/18.0	.122/15.3	.148/15.0	.167/14.6	.180/14.3	.186/14.3	.189/14.0	.189/14.0	.189/14.0	.189/14.0
21	21	.39/34.9	.041/33.1	.044/29.9	.051/24.9	.060/23.3	.072/20.3	.087/18.0	.109/17.5	.132/17.0	.148/16.5	.159/16.5	.166/16.1	.168/16.1	.168/16.1	.168/16.1	.168/16.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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DE 1040

LONGESTED
HMS VER ACC IN 0'S/ENCOUNTERED MODAL PERIOD. T. IN SECONDS
(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	162/10.1	175/9.8	223/9.5	323/8.7	542/7.3	747/5.7	863/4.8	911/5.7	919/5.7	748/6.3	600/6.3	530/6.5	509/6.5
	9	217/10.6	229/10.8	270/10.8	348/9.2	443/7.9	540/5.7	649/4.5	740/6.3	829/6.3	762/6.4	675/7.1	624/7.1	607/7.1
	11	227/11.6	236/11.6	265/10.8	318/10.1	410/8.5	500/5.7	597/7.4	679/6.5	757/6.5	654/6.8	518/7.7	384/7.7	374/7.7
	13	212/12.1	218/12.1	238/11.5	274/10.6	335/8.7	434/5.7	539/9.0	637/7.0	733/6.7	638/7.3	541/8.1	424/8.3	421/8.3
	15	189/12.6	193/12.6	208/12.1	233/11.2	276/9.2	346/6.3	414/10.5	487/7.0	561/6.7	641/7.5	724/8.1	804/8.5	854/8.5
	17	165/13.4	169/13.4	179/12.5	198/11.6	230/10.6	282/8.3	358/11.6	431/7.5	504/7.1	584/7.7	664/8.1	744/8.5	824/8.7
10	7	167/13.4	175/12.5	103/12.1	164/10.8	322/8.7	707/6.3	798/4.8	830/5.7	942/5.7	908/6.3	686/6.3	619/6.5	598/6.5
	9	111/14.0	119/13.7	147/12.8	205/11.6	315/9.5	540/5.7	602/4.8	758/6.3	870/6.3	851/6.8	798/7.1	760/7.1	747/7.1
	11	126/14.6	133/14.3	155/13.5	194/12.1	274/10.5	523/7.0	602/4.8	758/6.3	870/6.3	851/6.8	798/7.1	760/7.1	747/7.1
	13	124/15.3	129/15.0	147/14.0	174/12.6	242/10.8	334/7.3	365/9.0	468/7.0	571/6.7	608/7.3	616/7.7	615/7.9	614/8.1
	15	115/15.7	119/15.7	132/14.5	156/13.1	196/11.6	264/11.2	295/10.5	376/7.5	461/7.1	498/7.7	512/8.1	516/8.3	517/8.3
	17	104/16.1	107/15.7	117/15.3	136/13.7	166/12.5	222/12.1	243/11.6	308/8.1	378/7.1	411/7.7	426/8.1	432/8.3	434/8.5
15	7	153/17.0	156/16.5	104/15.3	119/14.3	142/13.4	185/13.4	204/12.5	257/12.1	314/7.1	343/7.7	357/8.3	364/8.5	365/8.7
	9	83/17.0	85/17.0	92/16.1	104/15.3	123/14.5	158/15.0	173/14.0	217/12.1	264/7.1	290/7.9	303/8.3	309/8.7	311/8.7
	11	25/20.3	29/19.5	045/17.5	086/14.3	195/10.5	500/7.0	739/5.2	878/5.7	1006/5.7	969/6.3	741/6.5	665/6.5	642/6.5
	13	151/20.3	156/19.6	046/17.5	117/14.3	205/10.6	402/7.5	563/7.9	700/5.7	939/6.3	937/6.8	895/7.1	859/7.1	846/7.1
	15	165/20.3	170/19.6	046/17.5	121/14.3	167/11.6	319/8.1	433/7.9	625/6.3	770/6.7	817/7.0	823/7.5	817/7.7	814/7.7
	17	169/20.3	173/19.6	047/17.5	114/14.3	164/12.6	257/10.8	363/9.0	492/6.4	619/6.7	675/7.3	698/7.7	706/7.9	704/7.9
20	7	167/20.3	171/19.6	047/17.5	106/14.3	162/13.4	211/12.1	276/11.2	394/7.4	499/7.1	553/7.7	580/8.1	592/8.3	596/8.3
	9	163/20.3	166/19.6	047/17.5	093/15.7	152/13.4	176/12.8	229/11.6	322/8.1	408/7.1	456/7.7	483/8.1	496/8.3	500/8.5
	11	159/20.3	161/19.6	047/17.5	083/15.5	147/15.7	159/14.0	193/12.6	268/12.1	339/7.1	380/7.9	404/8.3	417/8.5	421/8.7
	13	154/20.3	156/19.6	047/17.5	074/17.5	139/17.0	129/15.3	164/14.0	226/12.1	285/7.1	321/7.9	342/8.5	354/8.7	358/8.7
	15	130/16.7	124/29.9	023/24.4	039/17.0	114/13.4	356/7.9	687/5.7	1039/5.7	1168/6.3	961/6.4	819/6.7	731/6.5	702/6.5
	17	127/17.3	127/26.2	035/23.3	051/14.0	131/13.4	298/8.3	529/6.7	858/5.7	1043/6.3	1025/7.4	925/7.4	847/7.3	824/7.3
25	7	132/17.3	135/26.2	045/23.3	070/14.0	126/13.4	344/10.5	499/7.5	870/6.3	1056/6.7	929/6.8	847/7.3	766/7.3	740/7.3
	9	136/17.3	139/26.2	049/23.3	070/14.0	114/13.4	350/11.5	525/8.7	826/6.3	1068/6.7	939/7.3	802/7.5	716/7.5	690/7.9
	11	138/17.3	140/26.2	049/23.3	062/14.0	102/13.4	363/12.5	420/6.3	858/6.7	1080/6.7	950/7.3	806/7.5	724/7.5	698/7.9
	13	138/17.3	140/26.2	047/23.3	062/14.0	100/13.4	363/13.7	420/6.3	858/6.7	1080/6.7	950/7.3	806/7.5	724/7.5	698/7.9
	15	137/17.3	139/26.2	045/23.3	057/14.0	080/13.4	357/14.0	420/6.3	858/6.7	1080/6.7	950/7.3	806/7.5	724/7.5	698/7.9
	17	135/17.3	137/26.2	042/23.3	053/14.0	072/13.4	353/14.0	420/6.3	858/6.7	1080/6.7	950/7.3	806/7.5	724/7.5	698/7.9

NOTE: V IS SHIP SPEED IN KNOTS AND T IS BUOYAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

LUNGPRESSED

RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

HELICOPTER DECK MULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM RL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/8.7	.044/8.7	.085/8.7	.132/8.7	.198/8.3	.231/7.5	.162/7.9	.196/6.7	.174/6.7	.116/6.8	.066/7.1	.030/7.1	.000/7.1
	9	.000/8.7	.065/11.6	.124/11.2	.178/10.8	.228/8.5	.235/8.3	.180/8.5	.204/8.3	.201/7.9	.151/7.9	.101/8.1	.050/8.3	.000/8.3
	11	.000/13.4	.080/13.1	.149/12.5	.201/12.6	.234/12.1	.228/12.1	.184/11.6	.199/8.3	.198/8.3	.151/8.3	.110/8.3	.056/8.3	.000/8.3
	13	.000/14.3	.085/14.3	.150/14.3	.211/14.0	.236/13.4	.248/13.4	.194/14.0	.199/13.4	.194/13.1	.181/12.8	.113/12.6	.058/12.6	.000/12.6
	15	.000/15.7	.087/15.7	.152/15.7	.213/15.3	.238/15.3	.230/16.1	.208/15.7	.204/15.3	.193/15.0	.181/14.8	.114/14.3	.059/14.3	.000/14.3
	17	.000/17.5	.086/17.5	.159/17.5	.210/17.0	.234/16.5	.232/16.5	.216/16.0	.208/17.5	.193/17.0	.181/16.5	.115/16.5	.050/16.5	.000/16.5
	19	.000/19.6	.084/19.6	.155/19.6	.206/19.6	.231/19.0	.234/18.5	.222/18.0	.212/18.0	.194/17.5	.181/17.0	.115/16.5	.050/16.5	.000/16.5
10	7	.000/13.7	.057/13.4	.110/12.5	.161/10.8	.217/9.7	.246/7.5	.156/7.5	.176/7.0	.143/6.7	.097/6.8	.054/7.1	.024/7.1	.000/7.1
	9	.000/15.3	.094/14.0	.176/13.1	.231/12.1	.253/11.2	.246/8.3	.176/8.3	.188/8.3	.173/8.1	.136/8.3	.084/8.3	.044/8.3	.000/8.3
	11	.000/15.0	.111/14.5	.204/14.0	.257/13.1	.263/12.5	.241/12.1	.185/11.6	.187/8.7	.179/9.0	.145/9.0	.094/9.0	.050/9.0	.000/9.0
	13	.000/15.0	.114/15.7	.208/15.3	.261/14.3	.267/13.7	.241/13.7	.197/14.0	.188/13.4	.176/13.1	.144/12.8	.100/9.2	.052/9.0	.000/9.0
	15	.000/17.0	.111/17.0	.202/16.5	.255/16.5	.264/15.7	.244/16.5	.208/15.7	.193/15.3	.176/15.0	.144/14.6	.100/14.3	.052/14.3	.000/14.3
	17	.000/18.0	.106/18.0	.193/18.0	.245/18.5	.254/17.5	.244/18.5	.216/18.0	.198/17.5	.177/17.0	.143/16.5	.100/16.5	.052/16.5	.000/16.5
	19	.000/19.6	.101/19.6	.184/19.6	.237/20.3	.246/19.0	.245/19.0	.222/19.0	.203/18.0	.178/17.5	.145/17.0	.101/17.0	.052/16.5	.000/16.5
15	7	.000/22.4	.096/24.2	.177/24.2	.230/23.3	.235/22.4	.246/21.7	.227/20.9	.207/20.3	.181/20.3	.145/19.6	.101/19.6	.052/19.6	.000/19.6
	9	.000/19.6	.151/19.6	.224/17.5	.267/14.3	.254/10.5	.240/8.1	.152/7.5	.157/7.0	.128/6.7	.081/6.8	.045/7.1	.020/7.1	.000/7.1
	11	.000/20.3	.160/19.6	.274/17.5	.334/14.3	.306/11.5	.259/8.5	.174/8.5	.173/8.5	.157/8.5	.118/8.3	.076/8.3	.037/8.3	.000/8.3
	13	.000/20.3	.154/19.6	.273/17.5	.331/14.3	.301/11.0	.256/14.0	.197/14.0	.179/13.4	.161/13.1	.130/10.1	.090/10.1	.046/10.1	.000/10.1
	15	.000/20.3	.143/19.6	.255/17.5	.312/14.3	.281/11.5	.256/17.0	.209/15.7	.184/15.3	.161/15.0	.129/14.6	.090/14.3	.046/14.3	.000/14.3
	17	.000/20.3	.132/19.6	.237/17.5	.292/18.5	.261/15.5	.256/17.5	.216/18.0	.189/17.5	.163/17.0	.129/16.5	.089/16.5	.046/16.5	.000/16.5
	19	.000/20.3	.123/19.6	.221/17.5	.276/20.3	.241/20.9	.237/19.6	.222/18.0	.194/18.0	.165/19.6	.130/19.6	.089/19.0	.046/19.0	.000/19.0
20	7	.000/20.3	.116/19.6	.209/17.5	.263/22.1	.274/23.3	.257/22.4	.228/20.9	.199/20.3	.168/20.3	.131/19.6	.090/19.6	.046/19.6	.000/19.6
	9	.000/19.6	.242/41.9	.404/28.6	.615/19.0	.367/13.4	.275/8.5	.151/7.5	.143/7.0	.112/6.7	.069/6.8	.038/7.1	.017/7.1	.000/7.1
	11	.000/19.6	.265/28.6	.430/23.3	.605/19.0	.403/13.4	.273/9.0	.173/8.5	.162/8.7	.141/8.3	.094/8.5	.066/8.7	.032/8.7	.000/8.7
	13	.000/19.6	.249/26.2	.404/23.3	.582/19.0	.393/13.4	.272/13.4	.186/11.6	.167/9.8	.149/9.8	.116/9.5	.079/10.1	.040/9.0	.000/9.0
	15	.000/19.6	.223/26.2	.365/23.3	.561/19.0	.372/13.4	.272/14.6	.198/14.0	.170/13.4	.149/10.8	.118/10.5	.081/11.2	.042/11.2	.000/11.2
	17	.000/19.6	.200/26.2	.329/23.3	.530/19.0	.350/14.0	.271/16.1	.209/15.7	.175/15.3	.149/15.0	.117/14.6	.081/11.2	.041/11.2	.000/11.2
	19	.000/19.6	.179/26.2	.299/23.3	.500/19.0	.331/13.6	.271/18.0	.211/18.0	.181/17.5	.150/17.0	.117/17.0	.080/16.5	.041/16.5	.000/16.5
25	7	.000/19.6	.163/26.2	.275/23.3	.485/19.0	.315/21.7	.269/19.6	.222/19.0	.186/20.3	.152/19.6	.117/19.6	.080/19.6	.040/19.0	.000/19.0
	9	.000/19.6	.150/26.2	.256/23.3	.467/19.0	.304/22.2	.268/22.4	.227/20.9	.191/20.3	.156/20.3	.119/19.6	.081/19.6	.041/19.6	.000/19.6
	11	.000/19.6	.214/19.6	.412/19.6	.604/34.9	.553/18.5	.283/8.7	.150/7.5	.131/7.0	.097/6.7	.059/6.8	.032/7.1	.014/7.1	.000/7.1
	13	.000/19.6	.231/19.6	.434/19.6	.638/24.2	.540/18.5	.287/11.6	.173/8.5	.151/9.0	.126/8.5	.090/8.7	.057/8.7	.024/8.7	.000/8.7
	15	.000/19.6	.249/19.6	.453/19.6	.657/24.2	.549/18.5	.284/13.1	.166/11.6	.158/10.1	.135/10.1	.104/10.1	.073/10.1	.035/10.1	.000/10.1
	17	.000/19.6	.279/33.1	.476/29.9	.533/24.2	.452/18.5	.250/15.0	.196/15.0	.162/13.4	.137/11.6	.107/11.2	.073/11.2	.038/11.2	.000/11.2
	19	.000/19.6	.254/33.1	.460/29.9	.513/24.2	.415/18.5	.249/16.5	.216/18.0	.173/17.5	.139/17.0	.107/17.0	.073/16.5	.037/16.5	.000/16.5
30	7	.000/19.6	.231/33.1	.436/29.9	.480/24.2	.385/18.5	.247/18.0	.222/19.0	.178/20.3	.142/19.6	.107/19.6	.073/19.6	.037/19.6	.000/19.6
	9	.000/19.6	.211/33.1	.413/29.9	.460/24.2	.362/18.5	.232/20.3	.222/20.3	.178/20.3	.142/19.6	.107/19.6	.073/19.6	.037/19.6	.000/19.6
35	7	.000/19.6	.194/33.1	.372/24.2	.434/18.5	.344/18.5	.241/23.3	.227/20.9	.183/20.3	.145/20.3	.110/19.6	.074/19.6	.037/19.6	.000/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040															
LONGCRESTED															
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS															
HELICOPTER DECK HULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL															
V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.000/8.7	.030/8.7	.059/8.7	.095/8.7	.156/8.1	.209/7.1	.159/7.3	.210/6.3	.176/6.3	.112/6.4	.063/6.7	.029/7.00	.000/0.000	
	9	.000/8.7	.038/11.2	.074/11.2	.114/8.7	.162/8.3	.190/7.9	.150/8.3	.187/7.5	.179/7.1	.133/7.5	.085/7.7	.042/7.90	.000/0.000	
	11	.000/8.7	.041/12.1	.090/12.1	.142/11.6	.188/8.5	.192/8.3	.133/8.5	.158/8.3	.157/7.9	.124/8.1	.083/8.1	.042/8.30	.000/0.000	
	13	.000/13.4	.041/13.4	.078/13.1	.108/12.4	.133/12.5	.140/8.3	.120/12.6	.136/8.1	.135/8.1	.110/8.3	.076/8.1	.039/8.30	.000/0.000	
	15	.000/14.3	.039/14.3	.073/14.3	.108/14.3	.119/13.7	.124/14.3	.110/13.7	.119/13.7	.118/13.1	.098/8.3	.069/8.3	.035/8.30	.000/0.000	
	17	.000/15.7	.035/15.7	.067/15.3	.091/15.3	.107/15.3	.111/16.1	.101/15.7	.107/15.3	.105/15.0	.087/14.6	.062/14.3	.032/14.30	.000/0.000	
	19	.000/16.1	.032/16.1	.061/17.0	.093/17.0	.107/16.5	.101/16.0	.094/16.0	.097/17.5	.094/17.0	.079/14.6	.056/14.5	.029/14.30	.000/0.000	
10	7	.000/17.5	.029/17.5	.056/17.5	.096/17.5	.089/18.5	.093/18.5	.088/18.0	.089/17.5	.085/17.0	.071/17.0	.051/16.5	.027/16.50	.000/0.000	
	9	.000/13.7	.026/13.4	.055/12.1	.092/10.8	.150/8.7	.209/7.5	.153/7.0	.199/6.3	.166/6.3	.105/6.8	.059/6.7	.026/7.00	.000/0.000	
	11	.000/14.0	.041/13.7	.083/12.8	.121/11.6	.157/9.0	.188/8.1	.145/7.9	.180/7.5	.172/7.1	.129/7.5	.082/7.7	.040/7.90	.000/0.000	
	13	.000/14.6	.046/14.3	.090/13.7	.129/12.6	.148/11.6	.161/8.3	.131/8.3	.153/8.5	.153/8.3	.122/8.3	.083/8.5	.042/8.70	.000/0.000	
	15	.000/15.3	.046/15.0	.087/14.3	.118/13.4	.135/13.4	.140/13.4	.118/12.6	.132/8.7	.132/8.7	.109/8.7	.076/9.0	.039/9.00	.000/0.000	
	17	.000/16.1	.042/15.7	.080/15.3	.108/14.3	.122/14.6	.125/14.6	.109/14.6	.117/13.7	.115/8.7	.096/9.0	.067/9.2	.035/9.00	.000/0.000	
	19	.000/17.0	.035/17.0	.066/17.5	.098/17.0	.100/17.5	.102/17.0	.094/18.0	.095/17.5	.091/17.0	.076/16.5	.054/16.5	.028/16.50	.000/0.000	
15	7	.000/18.0	.031/18.0	.059/18.0	.090/18.5	.091/18.6	.094/19.0	.087/18.0	.087/17.5	.083/17.5	.069/17.0	.049/16.5	.026/16.50	.000/0.000	
	9	.000/20.3	.028/19.6	.065/17.5	.110/14.3	.148/10.5	.206/7.9	.148/7.0	.187/6.3	.154/6.3	.098/6.4	.055/6.7	.024/7.00	.000/0.000	
	11	.000/20.3	.045/19.6	.093/17.5	.141/14.3	.163/11.2	.194/8.3	.142/7.9	.172/7.5	.162/7.7	.122/7.7	.078/8.1	.038/8.10	.000/0.000	
	13	.000/20.3	.049/19.6	.098/17.5	.141/14.3	.156/12.1	.183/8.5	.129/8.5	.158/8.7	.146/8.3	.119/8.3	.081/8.7	.041/8.70	.000/0.000	
	15	.000/20.3	.047/19.6	.093/17.5	.130/14.3	.142/13.7	.151/12.8	.118/12.6	.129/9.2	.127/9.2	.106/9.2	.074/9.2	.039/9.20	.000/0.000	
	17	.000/20.3	.043/19.6	.084/17.5	.117/14.3	.128/14.6	.126/15.3	.109/14.6	.114/13.7	.111/9.5	.093/9.5	.066/10.1	.035/9.50	.000/0.000	
	19	.000/20.3	.039/19.6	.076/17.5	.104/14.3	.115/17.0	.114/17.0	.101/15.7	.102/15.3	.098/15.0	.082/14.6	.059/10.1	.031/10.10	.000/0.000	
20	7	.000/20.3	.035/19.6	.068/17.5	.093/14.3	.104/18.5	.104/17.5	.094/18.0	.093/17.5	.088/17.0	.074/16.5	.052/16.5	.027/10.10	.000/0.000	
	9	.000/20.3	.032/19.6	.061/17.5	.084/14.3	.096/19.0	.095/19.0	.087/14.0	.086/17.5	.080/17.5	.066/17.0	.047/16.5	.025/16.50	.000/0.000	
	11	.000/0.000	.026/34.9	.063/26.2	.116/14.0	.169/13.4	.201/8.3	.147/7.0	.179/6.3	.146/6.3	.092/6.4	.051/6.7	.023/7.00	.000/0.000	
	13	.000/27.3	.045/26.2	.093/23.3	.143/14.0	.170/13.4	.189/12.1	.129/8.5	.145/9.2	.141/8.5	.114/8.7	.078/8.7	.040/9.00	.000/0.000	
	15	.000/27.3	.045/26.2	.088/23.3	.131/14.0	.152/13.4	.141/13.4	.118/12.6	.126/9.5	.124/9.5	.102/9.5	.072/10.1	.038/9.50	.000/0.000	
	17	.000/27.3	.042/26.2	.081/23.3	.119/14.0	.136/13.4	.127/14.6	.109/14.0	.112/13.7	.108/10.5	.090/10.1	.065/10.1	.034/10.50	.000/0.000	
	19	.000/27.3	.039/26.2	.074/23.3	.105/14.0	.121/13.4	.115/16.1	.101/15.7	.100/15.3	.095/15.0	.080/10.5	.057/10.1	.030/11.20	.000/0.000	
25	7	.000/27.3	.035/26.2	.067/23.3	.095/14.0	.109/13.4	.105/18.0	.094/18.0	.091/17.5	.085/17.0	.071/16.5	.051/11.2	.027/11.20	.000/0.000	
	9	.000/27.3	.032/26.2	.061/23.3	.086/14.0	.096/19.0	.096/19.6	.087/18.0	.084/18.0	.077/17.5	.064/17.0	.046/17.0	.024/11.20	.000/0.000	
	11	.000/0.000	.017/0.000	.035/44.3	.090/28.6	.175/15.5	.195/8.7	.145/7.0	.170/6.3	.135/6.3	.085/6.8	.047/6.7	.021/7.00	.000/0.000	
	13	.000/0.000	.026/44.9	.057/33.1	.124/24.2	.187/15.5	.171/9.0	.141/8.3	.159/7.9	.146/7.7	.109/7.5	.070/7.5	.034/7.70	.000/0.000	
	15	.000/0.000	.037/33.1	.064/29.9	.130/24.2	.171/15.5	.140/14.0	.129/12.6	.141/9.2	.135/8.5	.108/9.0	.074/9.2	.038/9.00	.000/0.000	
	17	.000/0.000	.037/33.1	.072/29.9	.115/24.2	.140/15.5	.130/14.0	.118/12.6	.123/10.1	.119/9.5	.099/9.5	.070/10.1	.037/10.10	.000/0.000	
	19	.000/0.000	.037/33.1	.064/29.9	.105/24.2	.125/15.5	.115/16.1	.101/15.7	.098/15.3	.092/15.0	.077/10.5	.056/11.2	.033/11.20	.000/0.000	
14	.000/0.000	.035/33.1	.065/29.9	.096/24.2	.105/24.2	.125/15.5	.115/16.1	.101/15.7	.098/15.3	.092/15.0	.077/11.6	.056/11.20	.036/11.20	.000/0.000	
	.000/0.000	.033/33.1	.061/29.9	.098/24.2	.102/15.5	.097/20.3	.087/18.0	.082/18.0	.075/19.6	.062/19.6	.044/19.0	.024/11.20	.000/0.000		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

LONGESTED
RMS LAT ACC IN G/S/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS
OF
(ACC. X 100)

HELICOPTER DECK HULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES											
		0	15	30	45	60	75	90	105	120	135	150	
5	7	.000/8.7	.066/8.7	.131/8.7	.200/8.7	.311/7.9	.612/6.7	.546/6.5	.759/5.2	.583/5.7	.353/6.4	.198/6.7	.091/6.5
9	9	.000/8.7	.072/11.2	.145/9.0	.236/8.7	.376/8.3	.512/7.5	.436/7.9	.601/6.3	.535/6.7	.377/6.8	.234/7.3	.114/7.0
11	11	.000/8.7	.071/11.6	.141/11.6	.217/8.7	.316/8.3	.493/7.9	.367/8.3	.482/7.5	.344/7.1	.321/7.5	.213/7.7	.107/8.1
13	13	.000/8.7	.065/12.6	.127/12.1	.199/11.6	.262/8.3	.314/7.9	.279/8.3	.361/7.9	.346/7.7	.263/7.7	.180/8.1	.092/8.3
15	15	.000/8.7	.057/13.1	.112/13.1	.163/12.6	.218/8.3	.253/7.9	.230/8.5	.283/8.1	.280/7.7	.222/7.9	.151/8.1	.077/8.3
17	17	.000/13.4	.050/13.4	.097/13.1	.146/12.6	.183/8.3	.214/7.9	.193/8.5	.237/8.1	.230/7.7	.184/7.9	.127/8.1	.065/8.3
19	19	.000/14.3	.044/14.3	.084/14.0	.128/13.7	.156/8.3	.180/8.3	.164/14.0	.198/8.1	.192/7.9	.152/7.9	.107/8.1	.055/8.3
21	21	.000/14.6	.038/14.3	.073/14.3	.104/14.0	.134/8.3	.154/8.3	.141/15.7	.168/15.3	.162/7.9	.132/7.9	.092/8.1	.048/8.3
10	7	.000/13.7	.037/13.1	.086/12.1	.164/10.6	.231/8.7	.574/7.0	.529/6.5	.768/5.2	.609/5.7	.371/6.3	.210/6.5	.095/6.5
9	9	.000/14.0	.057/13.7	.123/12.8	.202/11.6	.317/8.7	.475/7.7	.422/7.9	.610/6.5	.560/6.7	.407/6.8	.255/7.3	.124/7.3
11	11	.000/14.3	.061/14.0	.127/13.4	.196/12.1	.274/7.9	.374/7.9	.337/7.9	.470/7.0	.571/7.1	.356/7.5	.237/7.9	.120/8.1
13	13	.000/15.0	.058/14.6	.117/13.7	.175/12.6	.232/11.6	.294/8.1	.272/8.3	.368/8.1	.365/7.7	.294/7.9	.201/8.1	.103/8.7
15	15	.000/15.0	.052/15.0	.104/14.9	.152/13.1	.195/12.6	.244/8.1	.225/8.3	.294/8.3	.295/7.7	.241/8.3	.167/8.5	.087/9.0
17	17	.000/15.3	.045/15.0	.090/14.3	.131/13.4	.167/13.4	.203/8.1	.189/14.0	.241/8.3	.242/7.9	.200/8.3	.140/8.7	.073/9.0
19	19	.000/15.3	.039/15.3	.078/14.5	.113/14.3	.143/14.3	.171/8.1	.161/14.0	.201/8.3	.202/8.1	.161/8.3	.118/8.7	.062/9.0
21	21	.000/15.7	.034/15.7	.068/15.0	.098/14.3	.123/14.5	.147/16.5	.139/15.7	.171/15.3	.171/8.1	.142/8.3	.100/8.7	.053/9.0
15	7	.000/20.3	.027/19.6	.071/17.5	.130/14.3	.207/10.5	.524/7.5	.512/6.5	.769/5.2	.621/5.7	.392/6.3	.220/6.3	.098/6.5
9	9	.000/20.3	.044/19.6	.104/17.5	.188/14.3	.276/10.8	.432/7.9	.410/7.5	.611/6.5	.573/6.5	.426/6.8	.271/7.3	.132/7.3
11	11	.000/20.3	.043/19.6	.104/17.5	.182/14.3	.248/11.6	.343/8.1	.329/7.9	.473/7.0	.470/7.1	.375/7.7	.254/8.1	.129/8.3
13	13	.000/20.3	.046/19.6	.100/17.5	.182/14.3	.213/14.1	.271/8.3	.268/8.3	.371/8.1	.376/7.7	.311/7.9	.217/8.1	.113/8.3
15	15	.000/20.3	.042/19.6	.094/17.5	.161/14.3	.182/14.5	.224/8.3	.222/8.3	.291/8.5	.304/7.7	.255/8.1	.181/8.5	.095/8.7
17	17	.000/20.3	.037/19.6	.078/17.5	.141/14.3	.156/13.4	.191/14.0	.187/14.0	.244/8.7	.249/7.7	.211/8.3	.151/8.7	.079/9.0
19	19	.000/20.3	.032/19.6	.068/17.5	.135/14.3	.134/14.0	.182/15.3	.160/14.9	.203/8.7	.208/7.7	.177/8.3	.127/8.7	.067/9.2
21	21	.000/20.3	.024/19.6	.059/17.5	.091/14.3	.116/14.0	.139/15.7	.139/15.7	.173/15.3	.176/7.9	.150/8.5	.108/8.7	.057/9.2
20	7	.000/34.9	.020/31.4	.047/26.2	.111/17.0	.245/13.4	.488/8.1	.505/6.5	.774/5.2	.634/5.7	.402/6.4	.229/6.7	.103/6.5
9	9	.000/28.6	.027/26.2	.067/23.3	.144/17.0	.257/13.4	.386/8.3	.405/7.5	.618/5.7	.590/6.3	.441/6.8	.285/7.1	.140/7.1
11	11	.000/27.3	.032/26.2	.073/23.3	.144/17.0	.202/13.4	.311/8.5	.327/7.9	.480/7.5	.485/7.1	.391/7.7	.269/8.1	.138/8.3
13	13	.000/27.3	.032/26.2	.071/23.3	.131/17.0	.200/13.4	.294/8.3	.266/8.3	.377/8.3	.390/7.9	.325/8.3	.231/8.7	.121/8.7
15	15	.000/27.3	.030/26.2	.066/23.3	.116/17.0	.171/13.4	.211/8.5	.221/8.5	.302/9.0	.315/8.1	.268/8.5	.193/8.7	.102/9.0
17	17	.000/27.3	.024/26.2	.054/23.3	.101/17.0	.146/13.4	.178/14.6	.156/14.0	.248/9.2	.258/8.1	.221/8.5	.161/9.0	.085/9.2
19	19	.000/27.3	.025/26.2	.053/23.3	.084/17.0	.126/13.4	.152/15.7	.159/14.0	.206/9.2	.215/8.7	.185/8.7	.135/9.0	.072/9.2
21	21	.000/27.3	.023/26.2	.048/23.3	.078/17.0	.110/13.4	.132/16.1	.138/15.7	.175/15.3	.182/8.3	.156/8.7	.114/9.0	.061/9.2
25	7	.000/7.7	.025/7.3	.030/41.9	.061/27.3	.140/16.5	.387/8.7	.498/6.5	.773/5.2	.632/5.7	.405/6.4	.231/6.7	.105/6.5
9	9	.000/52.4	.017/39.3	.033/33.1	.040/24.2	.211/16.5	.324/8.7	.402/7.5	.619/5.7	.592/6.5	.440/6.8	.291/7.3	.143/7.3
11	11	.000/37.0	.019/33.1	.031/29.9	.049/24.2	.197/16.5	.273/8.7	.325/7.9	.483/7.5	.490/7.3	.400/7.3	.277/7.5	.142/7.7
13	13	.000/34.9	.021/33.1	.045/29.9	.047/24.2	.174/16.5	.249/8.7	.265/8.3	.380/8.5	.395/8.3	.334/8.3	.239/8.7	.125/8.7
15	15	.000/34.9	.021/33.1	.046/29.9	.040/24.2	.151/16.5	.219/8.5	.221/8.5	.305/9.2	.320/8.5	.275/9.0	.200/9.2	.107/9.2
17	17	.000/34.9	.021/33.1	.044/29.9	.032/24.2	.131/16.5	.185/15.0	.186/14.0	.250/9.5	.262/8.5	.228/9.0	.167/9.0	.090/9.2
19	19	.000/34.9	.020/33.1	.042/29.9	.074/24.2	.114/16.5	.142/16.1	.159/14.0	.209/9.5	.218/8.5	.190/9.0	.140/9.2	.074/10.1
21	21	.000/34.9	.019/33.1	.039/29.9	.067/24.2	.100/16.5	.123/16.5	.137/15.7	.177/15.3	.184/8.5	.161/9.0	.119/9.2	.064/10.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

DE 1040

LUNGCRESTED

RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

OR

HELICOPTER DECK BULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	100/10.5	105/10.5	122/9.8	155/9.2	205/8.1	257/7.1	323/7.0	418/6.7	542/6.7	704/6.8	914/6.7	1184/7.0	1514/7.0	
9	9	178/11.6	182/11.6	197/11.2	219/10.5	245/9.8	282/9.2	336/9.0	424/8.5	554/8.1	734/8.1	964/8.1	1254/8.1	1604/8.3	
11	11	226/13.4	229/13.1	237/12.1	248/12.1	259/11.6	269/11.6	273/11.2	281/10.8	285/10.5	286/9.5	286/9.5	286/9.5	286/9.5	
13	13	249/14.6	251/14.3	255/14.3	259/14.0	262/13.6	269/13.1	273/12.6	275/12.1	276/11.6	276/11.2	276/11.2	276/11.2	276/11.2	
15	15	259/15.7	260/15.7	262/15.7	262/15.3	261/15.0	251/14.6	249/14.0	245/13.5	235/13.0	221/12.8	204/12.8	184/12.6	164/12.6	
17	17	262/17.5	262/17.5	262/17.5	262/17.5	259/17.0	255/16.8	249/16.0	245/15.5	235/15.0	221/14.6	204/14.6	184/14.3	164/14.3	
19	19	262/19.6	262/19.6	262/19.6	262/19.6	259/19.0	255/18.5	249/17.5	245/17.0	235/16.5	221/16.5	204/16.5	184/16.5	164/16.5	
21	21	262/22.4	262/22.4	262/22.4	262/22.4	259/21.7	255/21.2	249/20.4	245/20.3	235/20.3	221/20.3	204/20.3	184/20.3	164/20.3	
10	7	85/13.4	89/12.8	105/12.6	133/10.8	175/9.2	225/7.7	311/7.0	437/6.7	617/6.7	867/6.8	1197/7.1	1517/7.0	1837/7.0	
9	9	157/14.6	162/14.3	175/13.4	195/12.1	219/10.8	237/9.8	255/9.0	271/8.5	284/8.3	282/8.3	286/8.1	286/8.1	286/8.3	
11	11	204/15.3	207/15.0	215/14.3	227/13.4	237/12.6	241/11.6	237/11.2	240/10.8	248/9.8	247/9.5	242/10.1	237/9.8	235/9.8	
13	13	229/17.0	230/16.5	235/16.1	240/15.3	243/14.6	243/13.7	237/12.6	243/12.1	252/12.1	255/11.6	252/11.2	247/11.2	243/11.2	
15	15	241/18.5	242/18.0	244/17.5	246/17.0	246/16.1	243/16.5	240/15.7	245/15.0	252/14.6	257/14.6	260/14.3	260/14.0	260/14.0	
17	17	246/19.6	246/19.6	247/19.0	247/18.5	246/18.0	244/18.5	240/18.0	245/17.5	251/17.0	256/16.5	259/16.5	260/16.1	261/16.1	
19	19	248/21.7	248/21.7	248/21.7	248/21.7	246/21.2	244/20.9	242/20.9	245/20.3	250/20.3	254/19.6	258/19.6	260/19.6	260/19.6	
21	21	250/24.2	250/24.2	250/24.2	249/23.3	247/22.4	245/21.7	244/20.9	246/20.3	250/20.3	254/19.6	258/19.6	260/19.6	260/19.6	
15	7	75/20.3	79/19.6	92/17.5	117/14.3	156/10.8	200/8.5	282/7.0	407/6.5	587/6.5	837/6.8	1167/7.1	1507/7.0	1847/7.0	
9	9	141/20.3	144/19.6	156/17.5	176/15.3	199/12.1	217/10.5	217/9.0	227/8.5	234/8.3	234/8.3	234/8.3	234/8.3	234/8.3	
11	11	185/20.3	188/19.6	196/17.5	207/15.3	219/13.7	225/12.1	224/11.2	234/10.8	238/10.5	234/10.1	227/10.1	221/9.8	219/9.8	
13	13	210/20.3	212/19.6	216/17.5	226/15.3	238/13.7	243/12.1	244/11.2	236/12.6	242/12.1	243/11.6	242/11.2	239/11.2	238/11.2	
15	15	224/20.3	225/19.6	227/17.5	234/15.3	243/13.7	243/12.1	233/11.2	238/10.8	244/10.5	246/10.1	247/10.1	247/10.1	247/10.1	
17	17	231/20.3	232/20.3	232/21.7	234/20.3	234/19.0	233/17.0	233/15.7	238/15.3	244/15.0	246/14.6	248/14.3	247/14.0	246/14.0	
19	19	235/24.2	235/24.2	236/23.3	236/22.4	236/20.9	235/19.6	235/18.0	238/17.5	242/17.0	246/16.5	248/16.5	249/16.5	249/16.5	
21	21	239/27.3	239/26.2	239/26.2	238/25.1	238/23.3	237/22.4	237/20.9	239/20.3	243/20.3	246/19.6	248/19.6	249/19.6	249/19.6	
20	7	73/34.9	76/31.4	84/25.1	103/19.0	142/13.4	181/9.0	194/7.0	205/6.3	182/6.7	146/6.8	118/7.1	101/7.1	96/7.0	
9	9	131/27.3	134/26.2	141/23.3	157/19.0	182/13.4	201/11.2	210/9.0	227/8.5	237/8.3	232/7.5	192/7.9	180/7.9	176/7.9	
11	11	172/27.3	173/26.2	178/23.3	187/19.0	202/13.4	218/12.6	217/11.2	231/10.6	237/10.5	232/10.1	224/10.1	218/9.8	215/9.8	
13	13	196/27.3	196/26.2	199/23.3	206/19.0	212/17.0	218/15.6	222/12.6	232/12.6	239/12.1	239/11.6	236/11.2	233/11.2	232/11.2	
15	15	210/27.3	211/26.2	211/23.3	214/19.0	219/18.5	222/16.1	225/15.7	233/15.3	239/15.0	241/14.6	241/14.3	240/14.3	239/14.0	
17	17	218/27.3	218/26.2	218/23.3	220/19.0	222/20.3	224/19.6	226/18.0	232/17.5	238/17.0	240/16.5	241/16.5	241/16.5	241/16.5	
19	19	223/27.3	223/26.2	223/23.3	224/24.2	225/22.4	225/20.9	228/20.3	232/19.0	237/17.5	240/17.0	241/17.0	242/16.5	242/16.5	
21	21	228/27.3	228/26.2	228/23.3	229/26.2	228/25.1	227/24.2	230/20.9	234/20.3	237/20.3	240/19.6	241/19.6	242/19.6	243/19.6	
25	7	67/44.9	73/40.9	87/33.1	109/27.3	125/16.5	168/8.7	189/7.0	208/6.5	184/6.7	147/6.8	117/7.1	100/7.3	94/7.3	
9	9	118/48.3	123/44.9	128/33.1	140/24.2	163/16.5	185/11.6	205/9.0	230/8.5	232/7.5	217/7.7	200/7.9	188/7.9	184/7.9	
11	11	155/34.9	158/33.1	161/29.9	169/24.2	184/16.5	200/13.1	212/11.2	232/10.8	241/9.9	238/9.5	231/9.2	225/8.7	223/8.7	
13	13	179/34.9	180/33.1	182/29.9	186/24.2	196/16.5	207/15.3	216/12.6	230/12.6	240/12.1	242/11.6	240/11.2	237/11.2	236/11.2	
15	15	194/34.9	195/33.1	196/29.9	198/24.2	204/16.5	211/18.5	219/15.7	230/15.3	238/15.0	241/14.6	240/14.3	241/14.3	241/14.0	
17	17	203/34.9	203/33.1	204/29.9	205/24.2	209/21.7	215/20.3	220/18.0	229/17.5	236/17.0	239/16.5	240/16.5	241/16.5	241/16.5	
19	19	209/34.9	210/33.1	210/29.9	211/24.2	214/23.3	218/22.4	222/20.9	229/20.3	234/20.3	237/20.3	238/19.6	239/19.6	240/19.6	
21	21	215/34.9	215/33.1	215/29.9	216/27.3	214/26.2	221/23.3	224/20.9	229/20.3	234/20.3	237/20.3	238/19.6	239/19.6	240/19.6	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUTUAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 10-0														
LUNGCRESTED														
WMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OF														
HELICOPTER DECK BULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL														
V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.064/10.5	.068/10.1	.082/9.5	.112/8.7	.166/7.9	.248/6.3	.234/6.3	.227/6.3	.215/6.3	.177/6.4	.145/6.7	.127/6.5	.122/6.5
9	9	.099/11.2	.103/11.2	.115/10.8	.138/10.1	.173/8.7	.216/7.9	.205/7.9	.213/7.5	.222/7.1	.207/7.3	.189/7.5	.176/7.7	.172/7.7
11	11	.114/12.1	.117/12.1	.126/11.6	.141/11.2	.161/10.5	.189/9.8	.189/9.8	.189/9.8	.202/8.3	.200/8.3	.192/8.5	.183/8.5	.175/8.5
13	13	.116/13.4	.118/13.4	.124/13.1	.133/12.6	.146/12.1	.160/11.6	.156/11.6	.166/10.8	.179/10.5	.181/10.1	.179/10.1	.175/9.8	.173/9.8
15	15	.111/14.6	.113/14.3	.117/14.3	.123/14.0	.131/13.4	.140/13.1	.139/12.6	.147/12.1	.158/11.6	.162/11.6	.162/11.2	.161/11.2	.161/11.2
17	17	.104/15.7	.105/15.7	.108/15.7	.113/15.3	.119/15.0	.125/14.6	.124/13.7	.131/13.1	.140/13.4	.145/12.8	.146/12.6	.146/12.6	.146/12.6
19	19	.097/17.5	.098/17.5	.100/17.5	.103/17.0	.108/16.5	.112/16.1	.112/15.7	.118/15.3	.126/15.0	.130/14.3	.131/14.3	.132/14.3	.132/14.3
21	21	.090/19.6	.091/19.6	.093/19.6	.095/19.0	.098/18.5	.102/18.0	.102/18.0	.107/17.5	.113/17.0	.117/17.0	.119/16.5	.120/16.5	.120/16.5
10	7	.038/13.4	.042/12.8	.053/12.1	.076/10.8	.120/9.0	.198/7.0	.219/6.3	.228/6.3	.209/6.3	.173/6.4	.144/6.7	.129/6.5	.124/7.0
9	9	.067/14.3	.071/14.0	.082/13.1	.102/11.8	.133/10.5	.179/8.7	.194/7.9	.214/7.5	.220/7.1	.203/7.1	.184/7.7	.161/7.0	.157/7.7
11	11	.082/15.0	.085/15.0	.094/14.0	.109/12.8	.129/11.6	.159/10.8	.170/10.1	.189/9.0	.202/8.5	.203/8.5	.195/8.7	.184/8.7	.184/8.7
13	13	.087/16.1	.089/15.7	.095/15.3	.106/14.3	.121/13.4	.139/12.1	.149/11.6	.166/11.2	.180/10.5	.186/9.5	.186/9.8	.186/9.8	.186/9.8
15	15	.086/17.0	.088/17.0	.092/16.1	.100/15.3	.111/14.6	.125/13.7	.133/12.6	.146/12.6	.159/12.1	.166/11.6	.169/11.2	.170/11.2	.171/11.2
17	17	.083/19.5	.084/18.0	.088/17.5	.094/17.0	.102/16.1	.112/16.5	.119/15.7	.131/15.0	.142/13.4	.149/12.8	.152/12.8	.155/12.6	.155/12.6
19	19	.078/21.7	.079/21.7	.082/21.0	.087/20.5	.094/19.5	.102/17.0	.108/15.7	.117/15.3	.127/15.0	.133/14.3	.137/14.3	.140/14.3	.140/14.3
21	21	.072/23.3	.073/23.3	.075/23.3	.077/22.4	.082/20.9	.087/19.6	.093/18.0	.101/17.5	.115/17.0	.121/17.0	.124/16.5	.127/16.5	.127/16.5
15	7	.022/20.3	.024/19.6	.032/17.5	.051/14.3	.089/10.5	.159/7.9	.208/6.3	.236/5.7	.217/6.3	.178/6.4	.147/6.7	.129/6.5	.124/7.0
9	9	.043/20.3	.046/19.6	.056/17.5	.074/14.3	.104/11.6	.149/9.5	.186/7.9	.220/7.5	.229/7.1	.217/7.3	.202/7.5	.190/7.7	.187/7.7
11	11	.057/20.3	.060/19.6	.068/17.5	.083/14.3	.105/12.8	.136/11.2	.163/10.1	.193/9.0	.210/8.5	.211/8.5	.207/8.7	.202/8.7	.202/8.7
13	13	.063/20.3	.065/19.6	.072/17.5	.083/15.7	.101/14.6	.123/12.8	.144/11.6	.169/10.8	.186/10.5	.192/10.1	.194/10.1	.193/9.8	.193/9.8
15	15	.065/20.3	.067/19.6	.072/17.5	.081/17.5	.094/15.7	.111/14.3	.128/12.6	.148/12.6	.164/12.1	.172/11.6	.176/11.2	.178/11.2	.178/11.2
17	17	.064/20.3	.066/19.6	.070/17.5	.078/19.0	.088/17.0	.101/17.0	.115/15.7	.132/15.0	.145/13.4	.154/13.1	.158/12.8	.161/12.6	.161/12.6
19	19	.063/20.3	.064/19.6	.067/21.7	.073/20.3	.082/19.0	.093/17.5	.104/15.7	.118/15.3	.130/15.0	.138/14.3	.143/14.3	.145/14.3	.145/14.3
21	21	.061/24.2	.062/24.2	.065/23.3	.070/22.4	.077/20.9	.086/19.6	.096/18.0	.107/17.5	.117/17.0	.124/17.0	.129/16.5	.132/16.5	.132/16.5
20	7	.013/33.1	.014/29.9	.019/24.2	.032/19.0	.066/13.4	.130/8.5	.198/6.3	.246/6.3	.232/6.3	.192/6.4	.158/6.7	.137/7.0	.131/7.0
9	9	.026/27.3	.028/26.2	.036/23.3	.051/19.0	.081/13.4	.127/10.5	.179/7.9	.231/6.5	.248/6.7	.238/6.8	.222/7.3	.204/7.5	.206/7.5
11	11	.037/27.3	.040/26.2	.047/23.3	.061/19.0	.084/13.4	.118/12.1	.157/10.1	.201/9.0	.225/8.5	.230/7.5	.227/7.9	.217/8.1	.217/8.1
13	13	.044/27.3	.046/26.2	.052/23.3	.064/19.0	.083/13.4	.109/13.4	.139/11.6	.174/10.8	.197/9.8	.207/9.5	.210/10.1	.210/9.8	.210/9.8
15	15	.048/27.3	.049/26.2	.055/23.3	.064/19.0	.080/17.0	.109/15.6	.124/12.6	.152/12.6	.173/12.1	.184/11.6	.189/11.2	.192/11.2	.192/11.2
17	17	.049/27.3	.051/26.2	.055/23.3	.063/19.0	.076/18.5	.092/17.5	.111/15.7	.134/15.0	.152/13.4	.163/13.1	.169/12.8	.172/12.6	.172/12.6
19	19	.049/27.3	.050/26.2	.054/23.3	.061/19.0	.072/20.3	.085/19.6	.101/15.7	.120/15.3	.135/15.0	.154/14.6	.154/14.6	.154/14.6	.154/14.6
21	21	.049/27.3	.050/26.2	.053/23.3	.059/24.2	.068/22.4	.079/19.6	.093/18.0	.109/17.5	.122/17.0	.131/17.0	.136/16.5	.140/16.5	.140/16.5
25	7	.015/8.3	.015/8.1	.015/41.9	.019/26.2	.045/16.5	.108/8.7	.191/6.3	.258/6.3	.246/6.7	.204/6.8	.166/7.1	.144/7.1	.137/7.1
9	9	.016/41.9	.017/39.3	.022/31.4	.033/24.2	.060/16.5	.109/11.2	.173/7.9	.245/6.5	.271/7.0	.265/7.3	.250/7.5	.234/7.7	.234/7.7
11	11	.023/34.9	.024/33.1	.030/29.9	.043/24.2	.056/16.5	.103/12.6	.153/10.1	.212/8.7	.246/7.1	.256/7.5	.256/7.9	.252/8.1	.252/8.1
13	13	.029/34.9	.031/33.1	.037/29.9	.048/24.2	.067/16.5	.097/14.0	.135/11.6	.182/10.8	.214/9.8	.237/8.3	.235/8.1	.237/8.3	.237/8.3
15	15	.033/34.9	.035/33.1	.041/29.9	.050/24.2	.066/16.5	.090/15.3	.120/12.6	.158/12.6	.185/11.6	.201/11.2	.209/11.2	.213/11.2	.213/11.2
17	17	.036/34.9	.038/33.1	.042/29.9	.051/24.2	.064/16.5	.084/18.0	.108/15.7	.135/15.0	.162/13.4	.177/13.1	.185/12.8	.189/12.6	.189/12.6
19	19	.037/34.9	.039/33.1	.043/29.9	.051/24.2	.062/21.7	.081/15.7	.108/15.7	.123/15.3	.143/15.0	.164/14.3	.164/14.3	.164/14.3	.164/14.3
21	21	.038/34.9	.040/33.1	.043/29.9	.050/24.2	.060/23.3	.076/20.3	.090/18.0	.111/17.5	.128/17.0	.140/17.0	.147/16.5	.151/16.5	.151/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUTUAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040																
LUNGCRESTED																
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS																
OE																
(ACC. X 100)																
HELICOPTER DECK HULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM HL																
SHIP HEADING ANGLE IN DEGREES																
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180		
5	7	.131/10.1	.141/9.8	.180/9.5	.260/8.7	.437/7.5	.746/5.7	.839/4.8	.790/5.7	.713/5.7	.577/6.3	.470/6.3	.420/6.5	.405/6.5		
9	9	.176/11.2	.186/10.8	.219/10.5	.284/9.2	.405/8.3	.618/6.3	.640/5.2	.652/6.3	.657/6.3	.594/6.3	.527/7.1	.484/7.1	.476/7.3		
11	11	.187/11.6	.194/11.6	.219/11.2	.264/10.5	.344/8.7	.477/6.4	.493/7.9	.517/7.0	.543/6.7	.518/7.3	.484/7.5	.462/7.7	.454/7.9		
13	13	.177/12.6	.182/12.1	.200/12.1	.232/11.2	.286/9.5	.376/7.5	.388/6.7	.413/7.5	.440/7.1	.432/7.7	.415/8.1	.403/8.3	.399/8.3		
15	15	.159/13.4	.164/13.1	.176/12.6	.200/11.6	.239/10.8	.303/10.8	.313/10.5	.335/8.3	.360/7.7	.359/8.1	.350/8.5	.343/8.7	.341/8.7		
17	17	.141/13.4	.145/13.4	.154/13.1	.172/12.6	.201/12.1	.249/12.1	.258/11.6	.276/10.8	.298/7.9	.293/8.5	.295/8.7	.291/9.0	.290/9.0		
19	19	.125/14.6	.127/14.3	.135/14.0	.148/13.7	.171/13.4	.208/13.1	.216/12.6	.231/12.1	.250/8.1	.253/8.5	.250/9.0	.248/9.2	.247/9.2		
21	21	.110/15.7	.112/15.7	.118/15.3	.129/14.0	.147/14.6	.177/14.3	.183/14.0	.196/13.4	.212/11.6	.215/8.7	.214/9.2	.213/10.1	.213/10.1		
10	7	.054/13.4	.060/12.8	.083/12.1	.137/10.8	.262/8.7	.576/6.4	.761/5.2	.842/5.2	.758/5.7	.625/6.3	.529/6.3	.481/6.5	.467/6.5		
9	9	.040/14.3	.047/14.0	.120/12.8	.169/11.6	.263/9.5	.461/7.5	.601/6.5	.693/6.3	.708/6.3	.663/6.8	.614/7.3	.583/7.1	.573/7.3		
11	11	.105/15.0	.111/14.6	.130/13.7	.164/12.1	.234/10.8	.365/8.3	.465/7.5	.548/7.0	.588/7.0	.583/7.7	.567/7.7	.554/7.7	.549/7.9		
13	13	.105/15.3	.110/15.0	.125/14.3	.154/13.1	.202/11.6	.294/10.5	.368/8.7	.436/7.5	.478/7.5	.488/7.7	.466/8.1	.443/8.3	.431/8.3		
15	15	.099/16.1	.103/15.7	.114/15.3	.137/13.7	.173/12.6	.241/11.6	.297/10.5	.352/8.3	.390/7.9	.405/8.1	.409/8.5	.410/8.7	.410/8.7		
17	17	.091/17.0	.094/16.5	.103/16.1	.120/14.6	.149/13.4	.201/12.6	.245/11.6	.290/10.8	.323/8.1	.337/8.3	.344/8.7	.347/9.0	.348/9.0		
19	19	.082/18.0	.085/18.0	.092/18.0	.106/16.5	.129/14.6	.170/13.7	.206/12.6	.242/12.1	.270/8.5	.284/8.7	.291/9.0	.295/9.0	.296/9.0		
21	21	.074/18.5	.076/18.0	.083/17.5	.094/17.0	.113/15.7	.145/15.0	.175/14.0	.206/13.4	.229/8.7	.242/9.0	.249/9.2	.252/9.2	.253/9.2		
15	7	.021/20.3	.024/19.6	.036/17.5	.070/14.3	.160/10.5	.413/7.1	.735/5.7	.912/5.7	.854/5.7	.707/6.3	.592/6.3	.529/6.5	.511/6.5		
9	9	.042/20.3	.046/19.6	.062/17.5	.098/14.3	.174/11.2	.345/7.1	.568/6.5	.754/5.7	.802/6.3	.761/6.4	.710/6.7	.674/7.1	.662/7.1		
11	11	.055/20.3	.059/19.6	.073/17.5	.104/14.3	.163/12.1	.282/9.5	.441/7.5	.593/6.3	.663/6.5	.669/6.8	.657/7.5	.640/7.7	.640/7.7		
13	13	.059/20.3	.063/19.6	.075/17.5	.100/14.3	.146/13.1	.232/11.2	.350/8.7	.470/6.3	.537/6.7	.558/7.5	.563/8.1	.562/8.3	.561/8.3		
15	15	.057/20.3	.062/19.6	.072/17.5	.092/15.7	.128/13.4	.194/12.1	.284/10.5	.378/8.1	.436/7.1	.462/8.3	.472/8.5	.476/8.7	.478/8.7		
17	17	.057/20.3	.059/19.6	.068/17.5	.084/17.0	.113/15.3	.164/14.0	.234/11.6	.310/9.2	.350/8.1	.364/8.3	.396/8.7	.402/9.0	.404/9.0		
19	19	.053/20.3	.055/19.6	.063/17.5	.076/16.5	.099/17.0	.140/14.3	.197/12.6	.258/12.1	.300/8.5	.322/8.7	.335/9.2	.341/9.2	.343/9.2		
21	21	.050/20.3	.052/19.6	.058/17.5	.069/16.5	.088/18.5	.121/15.3	.168/14.0	.218/13.4	.234/8.7	.274/9.0	.285/9.2	.292/9.2	.293/9.2		
20	7	.025/6.7	.021/29.9	.018/24.2	.032/19.0	.095/13.4	.300/8.1	.694/5.7	.987/5.7	.988/6.3	.820/6.4	.688/6.7	.609/6.5	.584/7.0		
9	9	.023/27.3	.023/26.2	.029/23.3	.052/19.0	.112/13.4	.262/9.0	.541/6.5	.825/6.3	.928/6.3	.910/6.8	.860/7.1	.820/7.1	.805/7.3		
11	11	.028/27.3	.030/26.2	.039/23.3	.061/19.0	.124/13.4	.222/10.8	.422/7.3	.648/6.3	.767/6.7	.799/6.8	.796/7.1	.786/7.3	.781/7.3		
13	13	.032/27.3	.035/26.2	.043/23.3	.063/19.0	.104/13.4	.187/12.1	.336/8.5	.511/6.3	.618/6.7	.662/6.8	.678/7.3	.681/7.5	.681/7.5		
15	15	.034/27.3	.037/26.2	.045/23.3	.061/19.0	.094/13.4	.159/13.4	.272/10.5	.410/6.3	.500/6.7	.545/7.0	.565/7.5	.574/7.7	.576/7.7		
17	17	.035/27.3	.037/26.2	.044/23.3	.061/19.0	.085/17.0	.136/14.3	.225/11.6	.335/6.3	.410/6.7	.451/7.3	.472/7.5	.482/7.7	.485/7.7		
19	19	.034/27.3	.036/26.2	.042/23.3	.054/19.0	.076/16.5	.114/15.7	.189/12.6	.278/6.3	.341/6.7	.371/7.3	.397/7.5	.407/7.7	.410/7.7		
21	21	.033/27.3	.035/26.2	.040/23.3	.050/19.0	.069/19.6	.103/17.5	.161/14.0	.235/6.3	.288/6.7	.319/7.3	.337/7.5	.346/7.7	.349/7.7		
25	7	.050/7.1	.044/6.8	.046/6.3	.019/25.1	.051/16.5	.220/8.7	.662/5.7	.963/5.7	.074/6.3	.920/6.8	.769/6.7	.679/7.0	.651/7.0		
9	9	.032/7.1	.029/37.0	.031/29.9	.027/24.2	.069/16.5	.202/8.7	.520/6.5	.903/6.3	.067/6.7	.077/6.8	.033/7.3	.993/7.3	.979/7.5		
11	11	.024/34.9	.023/33.1	.027/29.9	.035/24.2	.074/16.5	.176/11.6	.407/7.3	.711/6.3	.888/6.7	.956/7.3	.971/7.5	.970/7.7	.968/7.7		
13	13	.022/34.9	.022/33.1	.027/29.9	.034/24.2	.072/16.5	.152/12.6	.324/8.5	.559/6.3	.714/7.0	.793/7.3	.827/7.5	.841/7.7	.845/7.9		
15	15	.022/34.9	.023/33.1	.029/29.9	.040/24.2	.068/16.5	.131/14.0	.263/10.5	.447/6.3	.576/7.0	.649/7.3	.687/7.7	.706/7.9	.712/7.9		
17	17	.022/34.9	.023/33.1	.029/29.9	.040/24.2	.064/16.5	.114/15.0	.218/11.6	.364/7.3	.471/7.0	.535/7.3	.571/7.7	.590/7.9	.596/7.9		
19	19	.022/34.9	.024/33.1	.029/29.9	.038/24.2	.059/16.5	.100/16.5	.183/12.6	.301/6.3	.390/7.0	.446/7.3	.478/7.7	.496/7.9	.504/7.9		
21	21	.022/34.9	.024/33.1	.028/29.9	.037/24.2	.054/16.5	.084/18.0	.156/14.0	.254/6.3	.328/7.0	.376/7.3	.405/7.7	.421/7.9	.426/7.9		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED
RMS ROLL IN DEGREES/ENCOUNTERED MODAL PERIOD, T*, IN SECONDS
OE

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.363/ 8.7	.375/ 8.7	.403/ 8.7	.433/ 8.7	.452/ 8.7	.452/ 8.7	.431/ 8.7	.392/ 8.7	.340/ 8.5	.282/ 8.3	.228/ 8.3	.189/ 8.3	.175/ 8.1
	9	.395/ 9.0	.414/ 9.0	.458/ 9.0	.507/ 9.0	.545/ 9.0	.545/ 9.0	.538/ 9.0	.529/ 9.0	.482/ 8.7	.425/ 8.7	.369/ 8.7	.327/ 8.7	.312/ 8.7
	11	.339/ 9.2	.357/ 9.2	.399/ 9.2	.449/ 9.2	.490/ 9.2	.490/ 9.2	.515/ 9.0	.505/ 9.0	.472/ 9.0	.428/ 9.0	.383/ 9.0	.349/ 9.0	.336/ 9.0
	13	.275/ 9.2	.289/ 9.2	.325/ 9.2	.364/ 9.2	.404/ 9.2	.404/ 9.2	.429/ 9.0	.429/ 9.0	.406/ 9.0	.373/ 9.0	.337/ 9.0	.310/ 9.0	.300/ 9.0
	15	.221/ 9.2	.233/ 9.2	.262/ 9.2	.297/ 9.2	.328/ 9.2	.328/ 9.2	.358/ 9.0	.358/ 9.0	.337/ 9.0	.311/ 9.0	.283/ 9.0	.261/ 9.0	.253/ 9.0
	17	.179/ 9.2	.189/ 9.2	.213/ 9.2	.242/ 9.2	.268/ 9.2	.268/ 9.2	.294/ 9.0	.291/ 9.0	.278/ 9.0	.257/ 9.0	.234/ 9.0	.217/ 9.0	.210/ 9.0
	19	.148/ 9.2	.156/ 9.2	.176/ 9.2	.200/ 9.2	.221/ 9.2	.221/ 9.2	.243/ 9.2	.241/ 9.0	.230/ 9.0	.214/ 9.0	.195/ 9.0	.181/ 9.0	.175/ 9.0
10	21	.123/ 9.2	.130/ 9.2	.147/ 9.2	.167/ 9.2	.185/ 9.2	.185/ 9.2	.204/ 9.2	.202/ 9.0	.193/ 9.0	.179/ 9.0	.164/ 9.0	.152/ 9.0	.147/ 9.0
	7	.311/ 9.5	.331/ 9.5	.376/ 9.5	.420/ 9.5	.445/ 9.5	.445/ 9.5	.478/ 9.5	.369/ 9.5	.303/ 8.7	.231/ 8.7	.167/ 8.3	.126/ 7.7	.113/ 7.5
	9	.296/ 9.5	.321/ 9.5	.375/ 9.5	.421/ 9.5	.469/ 9.5	.469/ 9.5	.474/ 9.5	.441/ 9.5	.388/ 9.2	.325/ 9.2	.266/ 9.2	.225/ 9.2	.210/ 9.2
	11	.248/ 9.5	.270/ 9.5	.318/ 9.5	.370/ 9.5	.410/ 9.5	.410/ 9.5	.436/ 9.5	.420/ 9.5	.386/ 9.5	.341/ 9.5	.297/ 9.8	.265/ 9.8	.253/ 9.8
	13	.201/ 9.5	.218/ 9.5	.258/ 9.5	.302/ 9.5	.338/ 9.5	.338/ 9.5	.370/ 9.5	.353/ 9.5	.340/ 9.5	.309/ 9.5	.276/ 9.8	.251/ 10.1	.242/ 10.1
	15	.163/ 9.5	.177/ 9.5	.209/ 9.5	.245/ 9.5	.276/ 9.5	.276/ 9.5	.306/ 9.5	.303/ 9.5	.287/ 9.5	.264/ 9.8	.239/ 9.8	.219/ 10.1	.212/ 10.1
	17	.133/ 9.5	.144/ 9.5	.171/ 9.5	.200/ 9.5	.226/ 9.5	.226/ 9.5	.253/ 9.5	.252/ 9.5	.240/ 9.5	.222/ 9.8	.202/ 10.1	.186/ 10.1	.181/ 10.1
15	19	.110/ 9.5	.119/ 9.5	.141/ 9.5	.166/ 9.5	.187/ 9.5	.187/ 9.5	.211/ 9.5	.210/ 9.5	.201/ 9.5	.186/ 9.8	.170/ 10.1	.158/ 10.1	.153/ 10.1
	21	.093/ 9.5	.100/ 9.5	.118/ 9.5	.134/ 9.5	.157/ 9.5	.157/ 9.5	.178/ 9.5	.177/ 9.5	.170/ 9.8	.158/ 9.8	.144/ 10.1	.134/ 10.1	.130/ 10.1
	7	.214/ 10.1	.241/ 10.1	.295/ 10.1	.345/ 10.1	.374/ 10.1	.374/ 10.1	.384/ 10.1	.325/ 10.1	.268/ 10.1	.199/ 8.5	.134/ 8.3	.091/ 7.7	.079/ 7.5
	9	.211/ 10.3	.238/ 10.5	.293/ 10.5	.346/ 10.5	.382/ 10.5	.382/ 10.5	.397/ 10.1	.350/ 10.1	.313/ 9.0	.254/ 9.2	.197/ 9.2	.157/ 9.2	.144/ 9.5
	11	.183/ 10.3	.205/ 10.3	.252/ 10.5	.299/ 10.5	.335/ 10.5	.335/ 10.5	.357/ 10.1	.341/ 10.1	.309/ 10.1	.267/ 10.1	.225/ 10.1	.194/ 10.1	.183/ 10.1
	13	.152/ 10.3	.170/ 10.3	.207/ 10.5	.247/ 10.5	.279/ 10.5	.279/ 10.5	.306/ 10.1	.299/ 10.1	.278/ 10.1	.248/ 10.1	.217/ 10.5	.194/ 10.5	.186/ 10.8
	15	.126/ 10.5	.139/ 10.5	.170/ 10.5	.202/ 10.5	.230/ 10.5	.230/ 10.5	.257/ 10.5	.254/ 10.5	.239/ 10.5	.218/ 10.5	.194/ 10.5	.176/ 11.2	.170/ 11.2
20	17	.104/ 10.5	.115/ 10.5	.140/ 10.5	.167/ 10.5	.190/ 10.5	.190/ 10.5	.215/ 10.5	.213/ 10.5	.203/ 10.5	.186/ 10.8	.168/ 11.2	.153/ 11.2	.148/ 11.2
	19	.087/ 10.5	.096/ 10.5	.117/ 10.5	.134/ 10.5	.159/ 10.5	.159/ 10.5	.180/ 10.5	.180/ 10.5	.172/ 10.5	.159/ 10.8	.144/ 11.2	.132/ 11.2	.128/ 11.2
	21	.074/ 10.5	.081/ 10.5	.098/ 10.5	.117/ 10.5	.134/ 10.5	.134/ 10.5	.153/ 10.5	.153/ 10.5	.146/ 10.8	.135/ 10.8	.123/ 11.2	.113/ 11.2	.110/ 11.2
	7	.177/ 13.4	.209/ 13.4	.271/ 13.4	.323/ 13.4	.356/ 13.4	.356/ 13.4	.367/ 13.4	.320/ 13.4	.266/ 8.7	.198/ 8.7	.127/ 8.7	.075/ 7.7	.063/ 7.5
	9	.179/ 13.4	.209/ 13.4	.267/ 13.4	.319/ 13.4	.356/ 13.4	.356/ 13.4	.371/ 13.4	.338/ 9.2	.292/ 9.2	.233/ 9.2	.172/ 9.2	.128/ 9.2	.115/ 9.5
	11	.159/ 13.4	.182/ 13.4	.230/ 13.4	.276/ 13.4	.311/ 13.4	.311/ 13.4	.332/ 13.4	.316/ 9.5	.284/ 9.5	.242/ 9.8	.197/ 10.1	.164/ 10.8	.153/ 10.8
	13	.134/ 13.4	.152/ 13.4	.190/ 13.4	.229/ 13.4	.260/ 13.4	.260/ 13.4	.287/ 13.4	.279/ 9.8	.258/ 10.1	.229/ 10.8	.197/ 11.2	.173/ 11.2	.164/ 11.2
25	15	.112/ 13.4	.126/ 13.4	.156/ 13.4	.188/ 13.4	.215/ 13.4	.215/ 13.4	.242/ 13.4	.239/ 10.1	.225/ 10.5	.204/ 11.2	.180/ 11.2	.162/ 11.6	.156/ 11.6
	17	.094/ 13.4	.105/ 13.4	.130/ 13.4	.156/ 13.4	.179/ 13.4	.179/ 13.4	.204/ 13.4	.203/ 10.1	.193/ 11.2	.177/ 11.2	.159/ 11.6	.145/ 11.6	.140/ 11.6
	19	.079/ 13.4	.088/ 13.4	.109/ 13.4	.131/ 13.4	.150/ 13.4	.150/ 13.4	.172/ 13.4	.172/ 13.4	.165/ 11.2	.152/ 11.6	.138/ 11.6	.126/ 11.6	.122/ 11.6
	21	.066/ 13.4	.075/ 13.4	.092/ 13.4	.110/ 13.4	.127/ 13.4	.127/ 13.4	.146/ 13.4	.147/ 13.4	.141/ 11.2	.131/ 11.6	.119/ 11.6	.109/ 11.6	.106/ 12.1
	7	.186/ 16.5	.225/ 16.5	.295/ 16.5	.353/ 16.5	.390/ 16.5	.390/ 16.5	.402/ 16.5	.369/ 9.2	.289/ 9.2	.211/ 9.0	.126/ 9.0	.083/ 7.7	.051/ 7.5
	9	.179/ 16.5	.212/ 16.5	.272/ 16.5	.326/ 16.5	.362/ 16.5	.362/ 16.5	.376/ 16.5	.336/ 9.5	.286/ 9.2	.221/ 9.2	.153/ 9.2	.104/ 9.2	.091/ 9.5
	11	.157/ 16.5	.182/ 16.5	.230/ 16.5	.275/ 16.5	.308/ 16.5	.308/ 16.5	.323/ 16.5	.303/ 9.5	.267/ 9.5	.220/ 9.8	.171/ 10.1	.136/ 10.8	.125/ 11.2
30	13	.133/ 16.5	.151/ 16.5	.189/ 16.5	.227/ 16.5	.256/ 16.5	.256/ 16.5	.276/ 16.5	.264/ 16.5	.241/ 9.8	.208/ 10.8	.174/ 11.2	.149/ 11.2	.140/ 12.1
	15	.111/ 16.5	.126/ 16.5	.156/ 16.5	.186/ 16.5	.211/ 16.5	.211/ 16.5	.233/ 16.5	.233/ 16.5	.211/ 10.8	.188/ 11.6	.163/ 12.1	.145/ 12.6	.138/ 12.6
	17	.094/ 16.5	.105/ 16.5	.129/ 16.5	.154/ 16.5	.176/ 16.5	.176/ 16.5	.196/ 16.5	.196/ 16.5	.182/ 11.6	.165/ 12.1	.146/ 12.6	.132/ 12.6	.127/ 12.6
	19	.079/ 16.5	.088/ 16.5	.108/ 16.5	.124/ 16.5	.147/ 16.5	.147/ 16.5	.168/ 16.5	.165/ 16.5	.156/ 11.6	.143/ 12.6	.128/ 12.6	.117/ 12.6	.113/ 12.6
	21	.068/ 16.5	.075/ 16.5	.092/ 16.5	.109/ 16.5	.125/ 16.5	.125/ 16.5	.141/ 16.5	.141/ 16.5	.134/ 12.1	.123/ 12.6	.111/ 12.6	.102/ 12.6	.099/ 12.6

NOTE: V IS SHIP SPEED IN KNOTS AND T* IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	50	75	90	105	120	135	150	165	180	
5	7	.053/9.8	.055/9.8	.059/9.8	.065/9.5	.070/8.1	.075/6.7	.079/6.5	.081/6.4	.081/6.4	.079/6.5	.077/6.5	.075/6.5	.075/6.5	
	9	.075/10.8	.075/10.8	.075/10.8	.075/10.8	.076/10.5	.078/9.8	.082/7.9	.087/7.5	.091/7.5	.095/7.5	.099/7.7	.101/7.7	.102/7.7	
	11	.082/12.1	.081/12.1	.079/12.1	.076/11.6	.073/11.6	.073/10.8	.075/9.8	.081/8.7	.087/8.5	.094/8.5	.100/8.5	.104/8.5	.105/8.7	
	13	.080/13.1	.079/13.1	.076/13.1	.071/12.6	.067/12.6	.065/12.1	.066/11.2	.071/10.1	.078/9.5	.086/9.5	.092/9.5	.097/9.8	.098/9.8	
	15	.074/14.0	.073/14.0	.069/14.0	.064/13.4	.060/13.4	.057/12.8	.058/12.1	.062/11.2	.069/10.8	.076/10.8	.083/11.2	.087/11.2	.089/11.2	
	17	.067/14.6	.065/14.6	.062/14.6	.057/14.3	.053/14.3	.050/14.0	.050/12.8	.054/12.1	.060/11.6	.067/11.6	.073/11.6	.078/11.6	.079/11.6	
	19	.060/15.7	.059/15.7	.055/15.7	.051/15.7	.046/15.3	.043/14.6	.044/14.0	.047/12.8	.053/12.8	.059/12.6	.065/12.6	.069/12.6	.070/12.6	
10	7	.045/13.4	.047/13.4	.051/13.4	.056/13.4	.061/10.5	.066/6.4	.070/6.4	.073/6.5	.074/6.5	.074/6.5	.073/6.7	.072/6.7	.072/6.7	
	9	.066/14.0	.066/14.0	.066/14.0	.067/13.7	.068/13.7	.071/12.8	.076/7.7	.083/7.5	.089/7.5	.094/7.7	.099/7.7	.102/7.7	.103/7.7	
	11	.074/14.6	.073/14.6	.071/14.6	.068/14.3	.067/14.3	.067/13.7	.072/9.0	.078/8.7	.085/8.5	.091/8.5	.096/8.5	.101/8.5	.102/8.5	
	13	.072/15.0	.071/15.0	.068/15.0	.064/15.0	.061/15.0	.060/14.3	.063/13.1	.070/10.1	.078/9.5	.087/9.2	.094/9.2	.099/9.5	.101/9.5	
	15	.067/16.1	.066/15.7	.063/15.7	.059/15.7	.055/15.3	.053/15.0	.055/13.4	.061/11.6	.069/11.2	.077/10.8	.084/10.8	.089/10.8	.091/10.8	
	17	.061/16.5	.060/16.5	.057/16.5	.052/16.1	.048/16.1	.046/15.3	.048/14.3	.053/12.8	.061/12.1	.068/12.1	.075/12.1	.080/12.6	.080/12.6	
	19	.054/17.0	.053/17.0	.050/17.0	.047/17.0	.043/17.0	.041/16.1	.042/15.0	.047/14.3	.053/12.8	.060/12.8	.066/12.8	.071/12.8	.071/12.8	
15	7	.040/17.5	.041/17.5	.045/17.5	.049/17.5	.054/14.3	.058/14.3	.062/6.8	.064/6.8	.065/6.8	.065/7.0	.064/7.0	.063/7.0	.063/7.0	
	9	.059/17.5	.059/17.5	.059/17.5	.060/17.5	.061/17.5	.062/17.5	.067/17.5	.077/7.7	.083/7.7	.089/7.7	.093/7.7	.096/7.7	.097/7.7	
	11	.066/19.6	.065/19.6	.064/19.6	.062/17.5	.061/17.5	.056/17.5	.060/17.5	.075/8.5	.083/8.5	.092/8.5	.098/8.7	.103/8.7	.105/8.7	
	13	.065/20.3	.064/20.3	.062/20.3	.058/20.3	.056/17.5	.056/17.5	.060/17.5	.067/10.5	.076/9.2	.085/9.2	.092/9.5	.097/9.5	.099/9.5	
	15	.060/20.3	.059/20.3	.057/20.3	.053/20.3	.050/20.3	.050/17.5	.053/17.5	.059/11.2	.068/11.2	.076/10.8	.083/10.8	.088/10.8	.090/10.8	
	17	.055/20.3	.054/20.3	.051/20.3	.047/20.3	.044/20.3	.044/17.5	.046/17.5	.052/14.3	.060/12.8	.067/12.1	.074/12.1	.078/12.1	.080/12.8	
	19	.049/20.3	.048/20.3	.046/20.3	.042/20.3	.039/20.3	.038/19.6	.040/17.5	.046/14.3	.052/14.3	.059/12.8	.065/12.8	.069/12.8	.071/12.8	
20	7	.037/13.4	.038/13.4	.041/13.4	.045/13.4	.049/13.4	.052/13.4	.055/13.4	.056/13.4	.056/7.3	.055/7.3	.054/7.3	.053/7.3	.053/7.3	
	9	.054/27.3	.054/19.0	.054/19.0	.054/19.0	.056/19.0	.059/13.4	.054/13.4	.070/7.9	.076/7.9	.081/7.9	.085/8.1	.087/8.1	.088/8.1	
	11	.060/23.3	.059/23.3	.058/23.3	.056/23.3	.056/19.0	.058/19.0	.057/19.0	.070/8.5	.078/8.7	.086/8.7	.093/8.7	.097/8.7	.098/8.7	
	13	.059/26.2	.058/26.2	.056/26.2	.053/23.3	.051/23.3	.052/19.0	.057/19.0	.064/13.4	.073/9.5	.081/9.5	.088/9.8	.093/9.8	.095/9.8	
	15	.055/26.2	.054/26.2	.052/26.2	.048/26.2	.046/23.3	.046/23.3	.050/19.0	.057/13.4	.065/10.8	.074/10.8	.080/10.8	.085/10.8	.087/10.8	
	17	.050/26.2	.049/26.2	.047/26.2	.043/26.2	.041/23.3	.041/23.3	.044/19.0	.050/13.4	.058/13.4	.065/12.1	.072/12.1	.076/12.6	.077/12.6	
	19	.045/26.2	.044/26.2	.042/26.2	.039/26.2	.036/26.2	.036/26.2	.039/19.0	.044/13.4	.051/13.4	.058/13.4	.064/12.6	.069/12.8	.070/12.8	
25	7	.034/15.5	.036/16.5	.038/16.5	.041/16.5	.045/16.5	.048/16.5	.049/16.5	.050/16.5	.049/8.7	.047/7.3	.045/7.3	.044/7.5	.043/7.5	
	9	.049/16.5	.049/16.5	.049/16.5	.050/16.5	.051/16.5	.055/16.5	.059/16.5	.064/16.5	.068/8.7	.072/8.3	.076/8.3	.078/8.3	.078/8.3	
	11	.054/34.9	.053/34.9	.053/16.5	.051/16.5	.051/16.5	.058/16.5	.058/16.5	.065/16.5	.073/8.7	.080/8.7	.086/9.0	.089/9.0	.091/9.0	
	13	.053/34.9	.053/34.9	.051/34.9	.049/33.1	.047/33.1	.047/16.5	.053/16.5	.060/16.5	.069/9.8	.077/9.8	.083/9.8	.088/9.8	.089/9.8	
	15	.050/33.1	.049/33.1	.047/33.1	.044/33.1	.043/33.1	.043/16.5	.047/16.5	.054/16.5	.062/11.2	.070/11.2	.077/10.8	.081/10.8	.082/10.8	
	17	.045/33.1	.044/33.1	.042/33.1	.040/33.1	.038/33.1	.038/16.5	.042/16.5	.048/16.5	.055/12.6	.063/12.6	.069/12.6	.073/12.6	.074/12.6	
	19	.041/33.1	.040/33.1	.038/33.1	.036/33.1	.034/33.1	.034/26.2	.037/16.5	.043/16.5	.049/16.5	.056/13.4	.061/13.4	.065/13.4	.066/13.4	
NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.															

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.035/ 9.5	.043/ 9.2	.052/ 9.0	.073/ 8.7	.085/ 8.7	.092/ 8.3	.094/ 7.9	.089/ 7.9	.080/ 7.7	.066/ 7.5	.050/ 7.5	.033/ 7.5	.025/ 7.5
	9	.064/11.2	.072/11.2	.089/10.8	.104/10.5	.123/10.1	.132/ 9.8	.133/ 9.8	.127/ 9.5	.114/ 9.5	.096/ 9.5	.074/ 9.5	.055/ 9.5	.046/ 9.5
	11	.087/13.1	.095/12.8	.114/12.6	.135/12.6	.152/12.1	.162/12.1	.164/11.6	.156/11.6	.142/11.6	.121/11.2	.097/11.2	.077/11.2	.068/11.2
	13	.103/15.0	.112/14.6	.131/14.3	.154/14.0	.172/14.0	.183/13.7	.185/13.7	.178/13.4	.162/13.4	.139/13.1	.115/13.1	.093/12.8	.084/12.8
	15	.114/16.5	.123/16.5	.143/16.1	.166/15.7	.186/15.7	.197/15.3	.200/15.3	.192/15.3	.176/15.0	.153/15.0	.128/14.6	.106/14.6	.097/14.6
	17	.120/18.0	.128/18.0	.149/17.5	.173/17.5	.193/17.5	.205/17.0	.207/17.0	.200/17.0	.184/17.0	.161/17.0	.135/16.5	.114/16.5	.105/16.5
	19	.123/19.0	.132/19.0	.152/19.0	.176/18.5	.196/18.5	.208/18.5	.211/18.5	.204/18.0	.188/18.0	.165/18.0	.140/17.5	.118/17.5	.109/17.5
	21	.125/21.7	.134/21.7	.154/20.9	.178/20.9	.198/20.9	.211/20.3	.214/20.3	.207/20.3	.191/20.3	.168/19.6	.143/19.6	.121/19.6	.113/19.6
	10	7	.043/11.6	.050/11.6	.065/ 9.5	.080/ 9.5	.091/ 9.2	.097/ 9.0	.097/ 8.7	.092/ 7.9	.081/ 7.9	.066/ 7.9	.048/ 7.7	.031/ 7.5
9		.073/12.8	.081/12.8	.094/12.8	.117/11.6	.131/10.8	.137/10.1	.137/10.1	.129/ 9.8	.114/ 9.8	.094/ 9.5	.071/ 9.5	.051/ 9.5	.042/ 9.5
11		.097/14.6	.105/14.6	.124/14.3	.144/13.4	.160/13.4	.168/12.6	.167/12.6	.157/12.1	.140/11.6	.117/11.2	.092/11.2	.071/11.2	.062/11.2
13		.114/16.1	.122/16.1	.141/15.7	.163/15.3	.179/15.0	.188/14.5	.187/14.0	.177/13.7	.159/13.4	.135/13.4	.109/13.1	.087/13.1	.078/12.8
15		.124/17.5	.132/17.5	.152/17.0	.174/16.5	.192/16.5	.201/15.7	.201/15.7	.191/15.3	.173/15.3	.148/15.0	.121/15.0	.099/14.6	.090/14.6
17		.129/19.0	.137/19.0	.157/18.5	.180/18.0	.198/18.0	.208/17.5	.208/17.5	.199/17.5	.180/17.0	.156/17.0	.129/17.0	.107/16.5	.098/16.5
19		.132/20.9	.140/20.3	.160/20.3	.182/19.6	.201/19.6	.211/19.0	.212/19.0	.203/18.5	.185/18.0	.160/18.0	.134/18.0	.112/17.5	.103/17.5
21		.134/23.3	.142/22.4	.161/22.4	.184/21.7	.203/20.9	.213/20.9	.214/20.3	.205/20.3	.187/20.3	.163/20.3	.137/19.6	.115/19.6	.106/19.6
15		7	.090/14.3	.093/14.3	.100/14.3	.107/14.3	.112/14.3	.112/14.3	.107/ 8.5	.097/ 8.5	.083/ 8.3	.066/ 8.1	.047/ 7.9	.030/ 7.5
	9	.101/17.5	.106/17.5	.120/17.5	.135/17.5	.145/17.5	.149/17.5	.145/17.5	.133/10.5	.115/10.1	.093/ 9.8	.069/ 9.5	.048/ 9.5	.039/ 9.2
	11	.118/17.5	.125/17.5	.142/17.5	.159/17.5	.172/17.5	.177/17.5	.173/17.5	.150/12.6	.140/12.1	.114/11.6	.088/11.6	.066/11.2	.057/11.2
	13	.131/17.5	.139/17.5	.156/17.5	.176/17.5	.190/17.5	.192/17.5	.192/17.5	.174/14.3	.157/14.0	.131/13.7	.104/13.1	.081/13.1	.071/13.1
	15	.139/19.6	.147/19.6	.165/19.6	.186/19.6	.201/19.6	.204/19.6	.205/19.6	.192/15.3	.170/15.3	.141/15.3	.116/15.0	.091/15.0	.083/14.6
	17	.143/20.3	.151/20.3	.169/20.3	.190/20.3	.206/20.3	.214/20.3	.211/20.3	.198/17.5	.177/17.5	.151/17.0	.123/17.0	.100/17.0	.091/16.5
	19	.145/22.4	.153/22.4	.171/21.7	.192/20.9	.208/20.3	.216/20.3	.214/20.3	.202/19.0	.182/19.0	.156/18.0	.128/18.0	.106/18.0	.096/17.5
	21	.147/25.2	.154/24.2	.172/23.3	.193/23.3	.210/22.4	.218/20.9	.216/20.9	.205/20.3	.182/20.3	.159/20.3	.131/19.6	.109/19.6	.100/19.6
	20	7	.156/39.3	.157/39.3	.158/13.4	.159/13.4	.157/13.4	.158/13.4	.133/13.4	.112/13.4	.090/13.4	.068/ 8.7	.047/ 7.9	.029/ 7.5
9		.163/19.0	.166/19.0	.173/19.0	.179/19.0	.182/19.0	.177/19.0	.164/19.0	.144/13.4	.119/10.1	.093/ 9.8	.067/ 9.5	.046/ 9.5	.036/ 9.2
11		.169/23.3	.174/23.3	.184/23.3	.195/23.3	.201/19.0	.199/19.0	.187/19.0	.167/13.4	.142/13.4	.113/11.6	.085/11.6	.062/11.2	.052/11.2
13		.173/23.3	.179/23.3	.191/23.3	.205/23.3	.221/19.0	.214/19.0	.203/19.0	.184/14.6	.158/14.3	.128/13.7	.099/13.4	.076/13.1	.066/13.1
15		.175/23.3	.181/23.3	.195/23.3	.211/23.3	.221/19.0	.222/19.0	.213/19.0	.195/15.7	.169/15.7	.140/15.3	.110/15.0	.087/15.0	.077/14.6
17		.174/23.3	.181/23.3	.195/23.3	.212/23.3	.223/23.3	.226/19.0	.218/19.0	.201/19.0	.176/17.5	.147/17.5	.118/17.0	.094/17.0	.085/17.0
19		.173/23.3	.184/23.3	.194/23.3	.211/23.3	.224/23.3	.227/23.3	.220/20.3	.204/19.6	.180/19.6	.151/18.0	.123/18.0	.100/18.0	.090/19.0
21		.172/26.2	.178/26.2	.193/26.2	.211/25.3	.224/23.3	.228/23.3	.222/23.3	.206/20.9	.182/20.3	.154/20.3	.126/20.3	.103/19.6	.094/19.6
25		7	.183/16.5	.187/16.5	.195/16.5	.202/16.5	.203/16.5	.192/16.5	.171/16.5	.142/16.5	.107/16.5	.074/16.5	.047/ 7.5	.027/ 7.5
	9	.215/16.5	.218/16.5	.225/16.5	.232/16.5	.232/16.5	.221/16.5	.199/16.5	.167/16.5	.131/16.5	.096/16.5	.066/ 9.8	.043/ 9.5	.034/ 9.5
	11	.227/24.2	.230/24.2	.239/24.2	.247/24.2	.248/16.5	.239/16.5	.217/16.5	.186/16.5	.149/16.5	.113/16.5	.082/11.6	.058/11.2	.048/11.6
	13	.230/24.2	.234/24.2	.243/24.2	.253/24.2	.255/24.2	.244/24.2	.227/24.2	.195/16.5	.163/16.5	.127/14.0	.095/13.4	.071/13.1	.061/13.1
	15	.229/24.2	.233/24.2	.243/24.2	.253/24.2	.258/24.2	.244/24.2	.227/24.2	.195/16.5	.163/16.5	.127/14.0	.095/13.4	.071/13.1	.061/13.1
	17	.224/24.2	.228/24.2	.239/24.2	.250/24.2	.251/24.2	.241/24.2	.223/24.2	.195/16.5	.163/16.5	.127/14.0	.095/13.4	.071/13.1	.061/13.1
	19	.218/24.2	.222/24.2	.234/24.2	.246/24.2	.247/24.2	.236/24.2	.218/24.2	.190/20.3	.160/20.3	.124/20.3	.094/19.6	.071/19.6	.064/19.6
	21	.212/24.2	.217/24.2	.229/24.2	.242/24.2	.249/24.2	.247/24.2	.234/24.2	.211/24.2	.182/20.9	.151/20.3	.121/20.3	.098/19.6	.088/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCUTTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.026/9.2	.033/9.2	.049/8.5	.062/7.9	.074/7.5	.082/7.3	.084/7.3	.081/7.1	.074/7.0	.061/7.0	.046/7.0	.031/7.1	.023/7.1	
	9	.038/10.8	.045/10.5	.060/9.8	.075/9.5	.087/9.2	.095/9.2	.097/9.2	.094/9.2	.085/9.2	.072/9.2	.056/9.2	.041/9.2	.034/9.2	
	11	.046/12.6	.052/12.1	.065/11.6	.080/11.6	.092/11.2	.099/10.8	.102/10.8	.098/10.5	.090/10.5	.077/10.5	.062/10.5	.048/10.5	.042/10.5	
	13	.049/14.0	.054/13.7	.066/13.4	.080/13.4	.091/12.8	.099/12.6	.101/12.6	.098/12.6	.090/12.6	.077/12.1	.063/12.1	.051/12.1	.046/11.6	
	15	.049/15.3	.054/15.3	.065/15.0	.078/14.6	.089/14.3	.095/14.0	.097/14.0	.095/14.0	.087/13.7	.076/13.4	.064/13.4	.052/13.4	.047/13.4	
	17	.048/16.5	.052/16.5	.062/16.1	.074/16.1	.084/15.7	.090/15.7	.092/15.7	.090/15.3	.083/15.3	.073/15.0	.062/15.0	.051/14.6	.047/14.6	
	19	.046/17.5	.049/17.5	.059/17.5	.069/17.5	.078/17.0	.084/17.0	.086/17.5	.084/17.0	.078/17.0	.069/16.5	.058/16.5	.049/16.5	.045/16.5	
10	7	.027/11.6	.034/9.5	.049/9.2	.064/8.5	.076/7.7	.083/7.5	.085/7.5	.082/7.5	.074/7.3	.062/7.3	.046/7.1	.031/7.1	.023/7.3	
	9	.039/12.8	.046/11.6	.061/11.6	.076/10.1	.088/9.5	.096/9.5	.098/9.5	.095/9.5	.086/9.2	.072/9.0	.056/9.0	.041/8.7	.034/9.0	
	11	.046/14.3	.052/13.7	.066/13.4	.080/12.6	.092/11.6	.099/11.2	.102/11.2	.099/10.8	.090/10.8	.077/10.5	.062/10.5	.048/10.5	.042/10.5	
	13	.049/15.3	.054/15.3	.067/14.6	.080/14.3	.092/13.4	.099/13.4	.101/12.6	.098/12.6	.090/12.6	.077/12.1	.063/12.1	.051/12.1	.046/11.6	
	15	.049/16.5	.054/16.5	.065/15.7	.078/15.7	.089/15.0	.095/14.6	.097/14.6	.095/14.0	.087/14.0	.076/13.7	.063/13.4	.052/13.4	.047/13.4	
	17	.047/18.0	.052/17.5	.062/17.5	.073/16.5	.083/16.5	.090/15.7	.092/15.7	.090/15.3	.083/15.3	.073/15.0	.061/15.0	.051/14.6	.047/14.6	
	19	.045/19.0	.049/18.5	.058/18.5	.069/18.0	.078/18.0	.084/17.5	.086/17.5	.084/17.0	.078/17.0	.069/16.5	.058/16.5	.049/16.5	.045/16.5	
15	7	.030/14.3	.037/14.3	.052/14.3	.066/13.4	.078/8.3	.085/8.3	.087/7.9	.083/7.9	.075/7.5	.062/7.5	.047/7.1	.031/7.1	.023/7.3	
	9	.041/17.5	.048/14.3	.062/14.3	.077/11.2	.090/10.8	.097/9.2	.099/9.2	.095/9.2	.086/9.0	.073/9.0	.056/9.0	.041/8.7	.034/8.7	
	11	.047/17.5	.053/17.5	.067/14.3	.081/14.3	.093/12.1	.101/11.6	.103/11.6	.099/11.2	.090/10.8	.077/10.5	.061/10.5	.047/10.5	.041/10.5	
	13	.049/17.5	.055/17.5	.067/17.5	.081/15.3	.092/14.3	.099/14.3	.101/12.8	.098/12.8	.089/12.6	.077/12.1	.063/12.1	.050/12.1	.045/12.1	
	15	.049/19.6	.054/17.5	.065/17.5	.078/17.5	.089/15.7	.095/15.3	.097/15.0	.094/14.3	.087/14.0	.075/14.0	.063/13.7	.051/13.4	.046/13.4	
	17	.048/19.6	.052/19.6	.062/19.6	.074/17.5	.083/17.5	.090/17.5	.092/15.7	.089/15.7	.082/15.3	.072/15.3	.060/15.0	.050/15.0	.046/14.6	
	19	.045/20.3	.049/20.3	.058/19.6	.069/19.6	.078/19.6	.084/18.0	.086/18.0	.084/17.5	.077/17.0	.068/17.0	.058/17.0	.048/16.5	.045/16.5	
20	7	.035/13.4	.041/13.4	.055/13.4	.069/8.4	.080/8.4	.087/13.4	.089/13.4	.085/8.7	.076/8.5	.062/7.0	.047/7.0	.031/7.1	.022/7.3	
	9	.045/19.0	.051/19.0	.065/19.0	.080/13.4	.092/13.4	.099/13.4	.101/9.5	.096/9.2	.087/9.2	.073/9.2	.056/9.0	.041/8.7	.033/9.0	
	11	.051/19.0	.056/19.0	.069/19.0	.084/13.4	.095/13.4	.102/13.4	.104/13.4	.099/10.8	.090/10.8	.077/10.5	.061/10.5	.047/10.5	.040/10.5	
	13	.052/23.3	.058/23.3	.069/23.3	.083/19.0	.093/19.0	.099/19.0	.102/13.4	.098/13.4	.089/13.4	.077/12.6	.062/12.1	.050/12.1	.044/12.6	
	15	.052/23.3	.056/23.3	.067/23.3	.079/19.0	.089/19.0	.096/19.0	.097/15.0	.094/14.6	.086/14.3	.075/14.0	.062/13.7	.050/13.4	.046/13.4	
	17	.050/23.3	.054/23.3	.064/23.3	.075/19.0	.084/19.0	.090/19.0	.092/16.1	.089/15.7	.082/15.7	.072/15.3	.060/15.0	.049/15.0	.045/15.0	
	19	.048/23.3	.051/23.3	.060/23.3	.070/23.3	.079/23.3	.084/19.0	.086/19.0	.083/17.5	.077/17.5	.068/17.0	.057/17.0	.048/16.5	.044/16.5	
25	7	.045/23.3	.048/23.3	.056/23.3	.066/23.3	.074/23.3	.079/19.0	.080/19.0	.078/19.0	.072/18.0	.063/18.0	.054/17.5	.045/17.5	.042/17.5	
	9	.047/16.5	.054/16.5	.068/16.5	.083/16.5	.095/16.5	.102/16.5	.103/16.5	.098/16.5	.087/16.5	.073/9.2	.056/9.0	.040/8.7	.033/9.0	
	11	.054/16.5	.060/16.5	.073/16.5	.087/16.5	.098/16.5	.105/16.5	.105/16.5	.101/16.5	.090/11.2	.076/10.8	.060/10.5	.040/10.5	.040/10.5	
	13	.058/24.2	.061/24.2	.073/16.5	.086/16.5	.096/16.5	.102/16.5	.103/16.5	.099/16.5	.089/12.6	.076/12.6	.062/12.1	.049/12.1	.043/12.1	
	15	.056/24.2	.060/24.2	.071/24.2	.082/24.2	.092/24.2	.099/24.2	.099/16.5	.094/16.5	.086/16.5	.074/14.0	.061/13.7	.048/13.7	.044/14.0	
	17	.054/24.2	.058/24.2	.067/24.2	.078/24.2	.087/24.2	.092/24.2	.093/16.5	.089/16.5	.081/16.5	.071/16.5	.059/15.0	.048/15.0	.044/15.0	
	19	.052/29.9	.055/24.2	.063/24.2	.073/24.2	.081/24.2	.086/24.2	.087/16.5	.083/16.5	.076/16.5	.067/16.5	.056/17.0	.047/17.0	.043/16.5	
	21	.049/29.9	.052/29.9	.060/24.2	.068/24.2	.076/24.2	.080/24.2	.081/24.2	.078/18.0	.072/18.0	.063/18.0	.053/17.5	.044/17.5	.041/17.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS RADIAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
(ACC. X 100)
CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.661/8.7	.087/8.5	.136/7.1	.184/7.0	.224/6.7	.249/6.7	.259/6.7	.253/6.7	.230/6.5	.194/6.5	.147/6.7	.098/6.7	.072/7.0
	9	.377/9.8	.097/9.5	.138/9.2	.180/9.2	.215/9.0	.239/9.0	.247/8.7	.241/8.7	.221/8.7	.188/7.9	.146/7.9	.105/8.1	.084/9.0
	11	.081/11.6	.096/11.2	.130/10.8	.166/10.6	.196/9.5	.216/9.5	.237/9.5	.218/9.5	.201/9.5	.173/9.5	.138/9.5	.105/9.5	.090/9.5
	13	.078/12.8	.090/12.6	.118/12.1	.148/11.6	.173/11.2	.190/11.2	.193/10.8	.193/10.8	.178/10.5	.155/10.5	.126/10.5	.100/10.5	.088/10.8
	15	.072/14.0	.082/13.7	.105/13.4	.130/13.1	.152/12.6	.169/12.6	.172/12.1	.169/12.1	.157/12.1	.137/11.6	.113/11.6	.092/11.6	.080/11.6
	17	.066/15.0	.074/15.0	.093/14.5	.114/14.0	.133/14.0	.145/13.7	.151/13.4	.148/13.1	.138/13.1	.121/13.1	.101/12.8	.083/12.8	.075/12.8
	19	.059/15.7	.066/15.7	.082/15.3	.100/15.0	.116/15.0	.127/14.6	.132/14.6	.130/14.3	.121/14.3	.106/14.0	.089/14.3	.074/14.3	.067/14.3
21	.053/17.0	.059/16.5	.072/16.1	.088/16.1	.102/15.7	.112/15.3	.116/15.3	.114/15.0	.106/15.0	.094/15.0	.079/15.0	.066/14.6	.061/14.6	
10	7	.056/9.5	.083/9.5	.134/7.5	.183/7.3	.224/7.0	.251/7.0	.262/7.0	.257/6.7	.235/6.7	.199/6.7	.153/6.7	.103/6.7	.077/7.0
	9	.070/11.6	.091/11.6	.133/9.5	.178/9.2	.214/9.0	.239/9.0	.250/8.7	.246/8.7	.226/8.3	.194/8.1	.153/8.1	.112/8.1	.092/8.3
	11	.073/13.4	.089/12.8	.124/11.6	.162/10.5	.193/10.1	.215/9.8	.225/9.5	.222/9.5	.206/9.5	.179/9.5	.145/9.5	.112/9.8	.096/9.8
	13	.071/14.3	.083/14.3	.112/13.4	.143/12.6	.170/12.1	.189/11.6	.198/11.2	.196/10.8	.183/10.8	.160/10.8	.132/10.8	.106/10.8	.084/10.8
	15	.065/15.3	.076/15.3	.099/14.6	.126/13.7	.149/13.4	.165/12.6	.173/12.6	.172/12.1	.161/12.1	.142/12.1	.119/11.6	.097/11.6	.087/11.6
	17	.059/16.5	.068/16.1	.088/15.7	.110/15.0	.130/14.5	.144/14.0	.151/13.7	.150/13.4	.141/13.1	.125/13.1	.105/12.8	.087/12.8	.080/12.8
	19	.053/17.5	.061/17.0	.077/16.5	.097/15.7	.114/15.3	.126/15.0	.132/15.0	.131/14.6	.123/14.3	.110/14.3	.093/14.3	.078/14.3	.072/14.3
21	.048/18.0	.054/17.5	.069/17.5	.085/16.5	.100/16.1	.111/15.7	.116/15.7	.115/15.3	.109/15.0	.097/15.0	.083/15.0	.070/14.6	.064/14.6	
15	7	.052/14.3	.080/14.3	.131/8.1	.182/7.9	.224/7.5	.252/7.0	.265/7.0	.261/6.7	.240/6.5	.204/6.5	.158/6.5	.108/6.7	.081/7.0
	9	.063/14.3	.085/14.3	.129/9.0	.174/9.0	.213/8.7	.240/8.5	.253/8.5	.250/8.5	.232/8.3	.201/8.3	.160/8.1	.119/8.3	.098/8.3
	11	.066/17.5	.083/14.3	.119/11.6	.158/11.2	.191/10.5	.215/9.8	.227/9.5	.226/9.5	.211/9.2	.185/9.2	.151/9.2	.119/9.2	.103/9.2
	13	.063/17.5	.077/17.5	.106/14.3	.139/12.6	.168/12.1	.189/11.6	.197/11.2	.194/11.2	.177/10.8	.146/10.8	.111/10.8	.087/10.8	.073/9.2
	15	.059/17.5	.070/17.5	.094/15.3	.122/14.3	.146/14.3	.164/12.6	.174/12.6	.174/12.6	.164/12.1	.142/12.1	.123/12.1	.102/12.1	.094/12.1
	17	.054/17.5	.063/17.5	.083/17.5	.107/15.3	.128/15.3	.143/14.3	.152/14.3	.152/14.3	.144/13.4	.129/13.1	.110/13.1	.092/12.8	.084/12.8
	19	.049/19.6	.056/19.6	.073/17.5	.093/17.5	.111/15.7	.125/15.3	.132/15.3	.133/14.6	.126/14.6	.113/14.3	.097/14.3	.082/14.3	.076/14.3
21	.044/19.6	.050/19.6	.065/18.5	.082/17.5	.100/17.5	.116/15.7	.116/15.7	.116/15.3	.111/15.3	.100/15.0	.086/15.0	.073/15.0	.068/14.6	
20	7	.048/13.4	.077/13.4	.129/13.4	.181/8.7	.224/8.3	.254/6.3	.268/6.3	.265/6.3	.245/6.5	.210/6.5	.163/6.5	.113/6.7	.086/6.8
	9	.057/13.4	.080/13.4	.125/13.4	.172/9.2	.212/9.0	.241/9.0	.256/8.7	.254/8.7	.238/8.5	.207/8.3	.166/8.1	.125/8.1	.105/8.3
	11	.060/19.0	.077/19.0	.114/13.4	.155/13.4	.190/9.8	.215/9.8	.229/9.5	.229/9.5	.216/9.2	.191/9.2	.157/9.2	.124/9.2	.109/9.2
	13	.058/19.0	.072/19.0	.102/19.0	.136/13.4	.166/13.4	.185/11.2	.191/10.8	.202/10.8	.191/10.8	.170/10.5	.143/10.5	.117/10.8	.105/10.8
	15	.054/23.3	.065/19.0	.091/19.0	.119/14.3	.145/13.4	.164/13.4	.175/13.4	.176/13.4	.168/12.1	.150/12.1	.124/12.1	.107/12.1	.097/12.6
	17	.050/23.3	.059/23.3	.080/19.0	.104/19.0	.126/14.6	.143/14.6	.152/14.0	.154/13.4	.147/13.4	.132/13.4	.114/13.1	.096/13.1	.088/13.1
	19	.045/23.3	.053/23.3	.071/19.0	.091/19.0	.110/14.0	.124/15.3	.133/15.0	.134/14.6	.128/14.6	.116/14.3	.100/14.3	.085/14.3	.079/14.3
21	.041/23.3	.048/23.3	.063/23.3	.080/19.0	.097/19.0	.109/15.7	.116/15.7	.118/15.7	.113/15.3	.102/15.0	.089/15.0	.076/15.0	.071/14.6	
25	7	.044/16.5	.074/16.5	.127/16.5	.180/9.5	.225/9.5	.256/6.3	.271/6.3	.269/6.3	.249/6.5	.215/6.5	.168/6.5	.118/6.7	.091/6.8
	9	.052/16.5	.076/16.5	.122/16.5	.170/16.5	.212/16.5	.241/9.0	.259/9.2	.259/9.2	.243/7.9	.213/7.9	.173/8.1	.131/8.1	.111/8.3
	11	.055/16.5	.073/16.5	.111/16.5	.152/16.5	.189/16.5	.216/16.5	.231/9.8	.230/9.8	.221/9.5	.196/9.5	.163/9.5	.130/9.5	.115/9.2
	13	.054/16.5	.068/16.5	.099/16.5	.134/16.5	.165/16.5	.189/16.5	.203/11.2	.205/10.8	.195/10.8	.175/10.5	.148/10.5	.122/10.5	.110/10.5
	15	.051/24.2	.062/16.5	.088/16.5	.117/16.5	.144/16.5	.164/16.5	.178/16.5	.178/16.5	.171/12.1	.154/12.1	.132/12.1	.111/12.1	.102/12.1
	17	.047/24.2	.056/24.2	.078/16.5	.102/16.5	.125/16.5	.143/16.5	.153/16.5	.155/13.4	.149/13.1	.135/13.1	.117/13.1	.099/13.1	.092/13.1
	19	.043/24.2	.051/24.2	.069/16.5	.094/16.5	.109/16.5	.124/16.5	.134/16.5	.136/16.5	.130/14.3	.119/14.3	.103/14.3	.089/14.3	.082/14.3
21	.040/24.2	.046/24.2	.061/24.2	.079/16.5	.096/16.5	.109/16.5	.117/16.5	.119/16.5	.115/16.5	.105/15.0	.091/15.0	.079/15.0	.073/14.6	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED

RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

OE

CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM BL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.058/10.5	.069/10.1	.093/8.3	.121/7.9	.146/7.5	.164/7.0	.173/7.0	.174/6.8	.165/6.7	.148/6.7	.126/6.5	.106/6.7	.097/6.7
9	9	.107/11.6	.114/11.6	.133/11.6	.155/10.8	.177/10.5	.193/9.5	.202/9.2	.202/9.0	.194/8.7	.180/8.7	.162/8.7	.147/8.7	.140/8.7
11	11	.150/13.4	.155/13.4	.167/13.1	.184/12.8	.200/12.1	.212/11.6	.219/11.2	.219/11.2	.212/10.8	.201/10.8	.188/10.5	.177/10.5	.173/10.5
13	13	.180/15.3	.183/15.0	.192/14.6	.204/14.3	.216/14.0	.225/13.7	.230/13.1	.229/12.8	.224/12.6	.216/12.6	.207/12.6	.199/12.6	.196/12.6
15	15	.201/17.0	.203/17.0	.209/16.5	.218/16.1	.227/15.7	.233/15.3	.237/15.0	.237/14.6	.233/14.6	.227/14.3	.220/14.3	.215/14.3	.213/14.3
17	17	.214/19.0	.215/19.0	.220/18.5	.226/18.0	.233/17.5	.238/17.5	.241/17.0	.241/16.5	.238/16.5	.233/16.5	.224/16.5	.224/16.5	.223/16.5
19	19	.223/19.6	.224/19.6	.227/19.6	.232/19.6	.237/19.6	.241/19.6	.243/19.6	.243/18.9	.241/18.9	.238/18.9	.234/18.9	.231/17.0	.230/17.0
21	21	.230/22.4	.231/22.4	.234/22.4	.237/21.7	.241/21.7	.244/20.9	.246/20.9	.246/20.3	.244/20.3	.242/19.6	.239/19.6	.237/19.6	.236/19.6
10	7	.055/12.8	.066/12.8	.091/9.0	.121/7.3	.147/7.0	.164/7.0	.180/6.7	.183/6.5	.176/6.5	.162/6.5	.142/6.5	.124/6.5	.116/6.7
9	9	.104/14.6	.111/14.3	.130/14.3	.154/14.0	.178/10.8	.197/9.5	.210/9.2	.214/9.0	.210/8.5	.200/8.3	.186/8.1	.174/8.1	.169/8.1
11	11	.146/15.7	.151/15.3	.164/15.3	.181/15.0	.199/14.3	.215/12.6	.225/11.6	.228/11.2	.225/10.8	.218/10.5	.208/10.1	.200/10.1	.197/10.1
13	13	.176/17.0	.179/17.0	.188/16.5	.201/16.1	.214/15.7	.226/14.6	.233/13.7	.236/13.1	.234/12.6	.228/12.6	.222/12.6	.216/12.6	.214/12.6
15	15	.197/18.5	.199/18.5	.206/18.5	.215/18.0	.225/17.5	.233/16.5	.239/15.7	.241/15.0	.240/14.6	.236/14.3	.231/14.3	.227/14.3	.225/14.3
17	17	.210/20.3	.212/20.3	.217/19.6	.224/19.6	.231/19.0	.238/18.0	.242/17.5	.243/17.0	.242/16.5	.239/16.5	.236/16.5	.233/16.5	.232/16.5
19	19	.220/21.7	.221/21.7	.225/21.7	.230/21.7	.236/20.9	.243/20.3	.246/20.9	.247/20.3	.244/18.0	.242/18.0	.239/17.5	.237/17.0	.236/17.0
21	21	.227/24.2	.228/24.2	.231/24.2	.235/23.3	.240/22.4	.243/21.7	.246/20.9	.247/20.3	.247/20.3	.245/19.6	.243/19.6	.241/19.6	.241/19.6
15	7	.053/14.3	.064/14.3	.090/14.3	.120/7.9	.148/7.0	.170/6.8	.184/6.7	.188/6.7	.183/6.7	.170/6.8	.152/6.8	.135/7.0	.128/7.0
9	9	.100/17.5	.107/17.5	.127/17.5	.153/17.5	.179/11.2	.201/9.0	.218/8.7	.226/8.5	.226/8.1	.220/7.7	.210/7.7	.201/7.7	.198/7.7
11	11	.141/20.3	.146/20.3	.160/20.3	.179/20.3	.200/17.5	.218/12.1	.231/11.9	.239/11.2	.241/10.5	.238/10.1	.233/9.8	.227/9.8	.225/9.5
13	13	.171/20.3	.175/20.3	.185/20.3	.199/20.3	.214/20.3	.234/15.3	.238/14.3	.244/13.1	.248/12.6	.247/12.6	.241/12.6	.237/12.6	.236/12.6
15	15	.193/20.9	.195/20.3	.202/20.3	.213/20.3	.224/20.3	.234/17.5	.242/15.7	.247/15.3	.249/14.6	.247/14.3	.245/14.3	.243/14.3	.242/14.3
17	17	.207/22.4	.208/22.4	.214/22.4	.221/21.7	.230/20.9	.238/19.6	.244/18.0	.248/17.5	.249/16.5	.248/16.5	.246/16.5	.245/16.5	.244/16.5
19	19	.217/24.2	.218/24.2	.222/24.2	.228/23.3	.234/22.4	.240/20.9	.245/20.9	.248/19.6	.249/19.0	.249/18.0	.247/17.5	.246/17.0	.246/17.0
21	21	.225/26.2	.226/26.2	.229/25.1	.234/25.1	.239/24.2	.243/23.3	.247/20.9	.249/20.9	.250/20.3	.250/19.6	.249/19.6	.248/19.6	.248/19.6
20	7	.051/13.4	.062/13.4	.088/13.4	.119/13.4	.147/13.4	.170/6.7	.184/6.7	.189/7.0	.185/7.0	.172/7.1	.154/7.1	.137/7.3	.129/7.3
9	9	.096/19.0	.104/19.0	.124/19.0	.152/19.0	.180/19.0	.205/19.0	.223/8.5	.235/8.1	.238/7.9	.235/7.9	.228/7.9	.220/7.9	.217/7.9
11	11	.137/23.3	.143/23.3	.157/23.3	.178/23.3	.200/19.0	.221/19.0	.238/11.2	.249/10.8	.255/10.1	.256/9.8	.254/9.2	.251/9.0	.250/8.7
13	13	.168/26.2	.171/26.2	.182/26.2	.197/23.3	.214/23.3	.230/19.0	.243/14.0	.253/13.4	.258/12.6	.260/12.6	.260/12.1	.258/11.6	.258/11.2
15	15	.190/26.2	.192/26.2	.200/26.2	.211/26.2	.224/23.3	.238/19.0	.246/15.7	.254/15.3	.258/14.6	.260/14.3	.260/14.3	.259/14.3	.259/14.3
17	17	.204/26.2	.206/26.2	.212/26.2	.220/26.2	.230/26.2	.239/23.3	.247/19.0	.253/17.5	.257/17.0	.258/16.5	.258/16.5	.258/16.5	.258/16.5
19	19	.215/27.3	.216/27.3	.220/27.3	.227/27.3	.234/26.2	.241/23.3	.247/20.3	.252/19.6	.255/19.0	.256/18.0	.257/17.5	.256/17.0	.256/17.0
21	21	.223/27.3	.225/27.3	.228/27.3	.233/27.3	.238/27.3	.244/26.2	.249/23.3	.252/20.9	.255/20.3	.256/19.6	.256/19.6	.256/19.6	.256/19.6
25	7	.050/16.5	.061/16.5	.088/16.5	.118/16.5	.147/16.5	.169/16.5	.183/16.5	.187/7.0	.182/7.1	.168/7.1	.149/7.3	.131/7.5	.123/7.5
9	9	.094/16.5	.102/16.5	.123/16.5	.151/16.5	.181/16.5	.201/16.5	.227/16.5	.240/16.5	.245/8.1	.243/8.1	.236/8.1	.229/8.3	.226/8.3
11	11	.135/34.9	.141/34.9	.156/34.9	.171/34.9	.186/34.9	.201/16.5	.224/16.5	.258/10.5	.266/10.1	.270/9.0	.270/8.7	.269/8.7	.268/8.7
13	13	.166/33.1	.170/33.1	.181/33.1	.196/24.2	.215/24.2	.234/16.5	.248/16.5	.261/12.8	.269/12.6	.274/12.1	.276/11.6	.277/11.2	.277/11.2
15	15	.189/33.1	.191/33.1	.199/33.1	.224/24.2	.234/24.2	.251/16.5	.261/16.5	.261/16.5	.268/14.6	.272/14.3	.274/14.3	.275/14.3	.275/14.3
17	17	.203/33.1	.205/33.1	.211/33.1	.220/33.1	.230/24.2	.241/24.2	.251/18.0	.259/16.5	.264/16.5	.268/16.5	.270/16.5	.271/16.5	.271/16.5
19	19	.214/33.1	.216/33.1	.220/33.1	.227/33.1	.235/33.1	.243/33.1	.247/33.1	.252/33.1	.257/33.1	.261/33.1	.264/33.1	.267/33.1	.267/33.1
21	21	.223/33.1	.224/33.1	.228/33.1	.233/33.1	.239/33.1	.243/24.2	.251/24.2	.256/20.9	.260/20.3	.262/19.6	.264/19.6	.265/19.6	.265/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS RUDDER ANGLE IN DEGREES.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCUTTED
RMS VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, * IN SECONDS
CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.942/ 8.7	.055/ 8.3	.082/ 7.1	.112/ 6.7	.139/ 6.3	.159/ 6.3	.171/ 6.3	.173/ 5.7	.165/ 5.7	.149/ 6.3	.128/ 6.3	.107/ 6.3	.094/ 6.3	
	9	.863/11.6	.071/11.2	.091/10.8	.115/10.1	.137/ 8.7	.155/ 8.3	.166/ 7.9	.169/ 7.9	.164/ 7.7	.153/ 7.7	.137/ 7.7	.123/ 7.9	.117/ 7.9	
	11	.777/12.8	.082/12.6	.095/12.1	.113/12.1	.130/11.2	.144/10.8	.153/10.5	.156/ 9.8	.153/ 9.5	.145/ 9.2	.125/ 9.2	.126/ 9.2	.122/ 9.5	
	13	.683/14.3	.086/14.3	.095/14.0	.108/13.4	.121/12.8	.132/12.1	.139/11.6	.142/11.6	.140/11.2	.135/11.2	.123/11.2	.123/11.2	.121/11.2	
	15	.584/15.7	.087/15.7	.093/15.3	.102/15.0	.112/14.3	.121/14.0	.127/13.4	.129/13.1	.129/12.8	.126/12.6	.117/12.6	.117/12.6	.116/12.6	
	17	.483/17.0	.084/17.0	.089/17.0	.096/16.5	.104/15.7	.111/15.3	.115/15.0	.118/14.6	.118/14.3	.116/14.3	.113/14.3	.110/14.3	.109/14.3	
	19	.380/19.0	.081/19.0	.085/18.5	.090/18.0	.096/17.5	.102/17.0	.106/16.5	.108/16.5	.108/16.5	.107/16.1	.105/16.1	.103/16.1	.102/16.1	
10	21	.276/19.6	.077/19.6	.080/19.6	.085/19.6	.090/19.0	.094/18.5	.097/18.0	.099/18.0	.100/17.5	.099/17.0	.098/17.0	.096/16.5	.096/16.5	
	7	.335/12.8	.048/ 9.5	.077/ 7.0	.110/ 6.3	.141/ 6.3	.162/ 6.3	.181/ 6.3	.188/ 6.3	.184/ 6.3	.171/ 6.3	.152/ 6.4	.134/ 6.4	.126/ 6.5	
	9	.352/14.3	.061/14.3	.083/14.0	.111/ 9.2	.138/ 8.3	.162/ 7.5	.179/ 7.1	.188/ 7.1	.190/ 7.0	.184/ 7.0	.174/ 7.0	.164/ 7.1	.159/ 7.1	
	11	.665/15.3	.070/15.0	.086/15.0	.107/14.3	.129/11.2	.148/10.5	.163/ 9.8	.172/ 9.2	.176/ 9.0	.174/ 8.7	.169/ 8.7	.163/ 8.5	.161/ 8.5	
	13	.771/16.1	.075/16.1	.086/15.7	.101/15.3	.118/14.0	.134/12.6	.146/12.1	.155/11.6	.159/11.2	.159/11.2	.156/10.8	.153/10.8	.152/10.8	
	15	.737/17.5	.076/17.5	.084/17.0	.096/16.5	.109/15.7	.121/14.6	.132/13.7	.139/13.1	.143/12.8	.144/12.6	.143/12.6	.142/12.6	.141/12.6	
	17	.722/19.0	.074/19.0	.081/18.5	.090/18.0	.100/17.0	.111/16.1	.119/15.3	.126/14.6	.130/14.3	.131/14.3	.130/14.3	.130/14.3	.130/14.3	
15	19	.707/20.3	.072/20.3	.077/19.6	.084/19.6	.093/18.5	.101/17.5	.109/17.0	.114/16.5	.116/16.5	.117/16.1	.120/16.1	.119/16.1	.119/16.1	
	21	.688/21.7	.069/21.7	.073/21.7	.079/20.9	.086/20.3	.093/19.6	.100/18.5	.104/18.0	.109/17.5	.109/17.0	.110/16.5	.110/16.5	.110/16.5	
	7	.829/14.3	.043/14.3	.074/ 7.3	.109/ 6.3	.142/ 6.3	.170/ 6.3	.190/ 6.3	.199/ 6.4	.199/ 6.5	.189/ 6.5	.172/ 6.7	.156/ 6.8	.149/ 6.8	
	9	.843/17.5	.053/17.5	.077/17.5	.108/ 8.3	.140/ 7.5	.170/ 7.0	.193/ 7.0	.209/ 7.1	.217/ 7.1	.218/ 7.1	.213/ 7.3	.207/ 7.3	.204/ 7.3	
	11	.853/20.3	.060/20.3	.078/19.6	.102/12.1	.129/11.2	.154/ 9.2	.176/ 8.7	.193/ 7.9	.203/ 7.7	.208/ 7.7	.204/ 7.7	.204/ 7.7	.204/ 7.7	
	13	.859/20.3	.064/20.3	.077/20.3	.096/20.3	.117/12.8	.138/12.6	.157/11.6	.171/11.2	.182/10.5	.188/10.1	.190/ 9.2	.190/ 9.0	.190/ 9.0	
	15	.862/20.3	.064/20.3	.075/20.3	.090/20.3	.107/15.3	.124/14.6	.140/13.4	.152/12.8	.162/12.6	.168/12.6	.171/12.6	.172/12.6	.172/12.1	
20	17	.863/21.7	.065/21.7	.073/20.9	.084/20.3	.094/20.3	.112/17.5	.125/15.3	.136/15.0	.144/14.3	.150/14.3	.153/14.3	.154/14.3	.155/14.3	
	19	.862/22.4	.064/22.4	.070/22.4	.079/21.7	.090/20.3	.102/18.0	.113/17.5	.122/16.5	.130/16.5	.135/15.7	.138/15.3	.139/15.0	.140/15.0	
	21	.860/24.2	.062/24.2	.067/23.3	.075/22.4	.084/20.9	.094/20.3	.103/19.6	.111/18.0	.118/17.5	.122/17.0	.125/16.5	.126/16.5	.127/16.5	
	7	.824/13.4	.039/13.4	.071/13.4	.108/ 6.3	.143/ 6.3	.173/ 6.5	.194/ 6.5	.206/ 6.7	.217/ 6.7	.218/ 6.8	.212/ 7.0	.206/ 7.1	.204/ 7.1	
	9	.834/19.0	.046/19.0	.072/19.0	.107/ 8.5	.143/ 7.1	.177/ 7.1	.206/ 7.3	.228/ 7.3	.241/ 7.5	.246/ 7.5	.242/ 7.5	.242/ 7.5	.240/ 7.7	
	11	.843/23.3	.051/23.3	.071/19.0	.099/19.0	.130/10.1	.161/ 8.5	.189/ 7.7	.213/ 7.7	.230/ 7.9	.240/ 7.9	.246/ 7.9	.248/ 7.9	.248/ 7.9	
	13	.849/23.3	.055/23.3	.070/23.3	.092/23.3	.117/13.4	.144/11.6	.168/10.8	.189/10.1	.205/ 8.1	.217/ 8.1	.224/ 8.1	.228/ 8.1	.229/ 8.1	
25	15	.853/26.2	.057/26.2	.068/26.2	.086/23.3	.106/15.0	.128/14.0	.149/13.4	.167/13.4	.182/12.1	.193/11.6	.200/10.8	.204/ 8.3	.205/ 8.3	
	17	.854/26.2	.057/26.2	.066/26.2	.080/26.2	.097/19.0	.115/15.7	.132/15.3	.148/14.6	.161/14.3	.171/14.3	.177/14.0	.181/14.0	.182/14.0	
	19	.854/27.3	.056/27.3	.064/26.2	.075/26.2	.089/23.3	.104/19.0	.119/17.0	.132/16.5	.143/16.1	.152/15.3	.158/15.0	.161/14.6	.162/14.6	
	21	.853/27.3	.055/27.3	.061/27.3	.071/27.3	.082/23.3	.095/20.3	.107/19.0	.119/19.0	.129/17.5	.136/17.0	.142/16.5	.145/16.5	.146/16.5	
	7	.820/16.5	.037/16.5	.069/16.5	.107/ 6.3	.143/ 6.5	.174/ 6.5	.196/ 6.7	.208/ 6.7	.209/ 6.8	.200/ 7.1	.183/ 7.1	.166/ 7.3	.159/ 7.3	
	9	.828/16.5	.040/16.5	.059/16.5	.086/16.5	.116/ 7.1	.144/ 7.3	.171/ 7.5	.202/ 7.9	.225/ 7.9	.246/ 7.9	.267/ 7.9	.285/ 7.9	.264/ 7.9	
	11	.835/16.5	.044/16.5	.057/16.5	.098/16.5	.133/16.5	.169/ 7.9	.207/ 8.1	.231/ 8.1	.253/ 8.1	.268/ 8.3	.278/ 8.3	.282/ 8.3	.283/ 8.3	
30	13	.841/24.2	.047/24.2	.065/16.5	.090/16.5	.119/16.5	.150/11.2	.179/10.1	.206/ 8.3	.228/ 8.3	.245/ 8.3	.256/ 8.5	.262/ 8.5	.264/ 8.5	
	15	.844/33.1	.049/33.1	.053/24.2	.083/16.5	.107/16.5	.133/16.5	.161/12.8	.181/12.1	.201/ 8.7	.217/ 8.7	.234/ 8.7	.234/ 8.7	.234/ 8.7	
	17	.846/33.1	.050/33.1	.061/33.1	.077/24.2	.097/16.5	.118/16.5	.140/16.5	.160/14.3	.177/14.0	.191/13.4	.201/12.6	.206/ 8.7	.208/ 8.7	
	19	.847/33.1	.050/33.1	.058/33.1	.072/33.1	.094/24.2	.107/16.5	.125/16.5	.142/16.5	.157/16.5	.169/15.0	.178/14.6	.183/14.6	.185/14.6	
	21	.847/33.1	.050/33.1	.057/33.1	.068/33.1	.091/24.2	.107/20.3	.113/18.0	.127/17.5	.140/17.0	.151/16.5	.159/16.5	.163/16.5	.165/16.5	
	7	.824/13.4	.039/13.4	.071/13.4	.108/ 6.3	.143/ 6.3	.173/ 6.5	.194/ 6.5	.206/ 6.7	.217/ 6.7	.218/ 6.8	.212/ 7.0	.206/ 7.1	.204/ 7.1	
	9	.834/19.0	.046/19.0	.072/19.0	.107/ 8.5	.143/ 7.1	.177/ 7.1	.206/ 7.3	.228/ 7.3	.241/ 7.5	.246/ 7.5	.242/ 7.5	.242/ 7.5	.240/ 7.7	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040														
SHURTCRESTED														
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OE														
(ACC. X 100)														
CENTER OF GRAVITY - 196.3 FT FORWARD OF AP AND 16.0 FT FROM BL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	103/8.3	150/7.1	247/5.7	352/5.7	446/5.7	518/5.7	561/5.7	571/5.7	549/5.7	499/5.7	429/5.7	359/5.7	326/5.7
	9	124/11.2	154/10.8	223/8.5	305/7.0	380/6.3	440/6.3	478/6.3	492/6.3	480/6.3	446/6.3	399/6.5	353/6.7	333/6.8
	11	132/12.1	150/12.1	197/11.6	256/10.8	313/8.7	359/7.9	398/7.5	402/7.3	397/7.3	376/7.3	345/7.9	316/8.1	303/8.3
	13	128/13.1	141/13.1	173/12.6	216/12.1	258/11.2	294/10.5	318/9.2	329/9.0	327/9.0	314/9.0	294/9.2	275/9.2	266/9.5
	15	120/14.3	128/14.3	152/13.7	184/13.1	216/12.6	244/11.6	263/11.2	273/10.8	272/10.8	264/10.8	250/10.8	237/10.8	231/11.2
	17	109/15.3	116/15.3	133/14.5	158/14.3	183/13.4	205/12.8	229/12.1	229/11.6	223/11.6	223/11.6	214/11.6	205/11.6	201/11.6
	19	099/16.1	104/16.1	117/15.7	136/15.3	156/14.6	174/14.0	187/13.1	194/12.6	195/12.6	191/12.6	184/12.6	177/12.6	175/12.6
	21	090/17.5	093/17.5	104/17.0	119/16.5	135/15.7	150/15.0	161/14.3	167/14.0	168/13.7	165/13.7	160/14.0	155/14.3	153/14.3
10	7	077/9.5	130/6.7	235/5.7	352/5.7	463/5.7	553/5.7	614/5.7	642/5.7	635/5.7	596/6.3	535/6.3	472/6.3	444/6.4
	9	091/14.0	126/14.0	205/7.0	300/6.3	395/6.3	474/6.3	540/6.3	577/6.3	588/6.3	575/6.5	545/6.5	513/6.7	499/6.7
	11	097/14.6	119/14.6	175/14.3	247/7.0	321/6.3	388/6.3	441/6.3	476/6.3	493/6.7	491/6.7	478/7.0	462/7.0	453/7.0
	13	096/15.7	111/15.3	151/15.0	204/12.6	262/10.8	314/9.4	358/8.7	388/8.7	405/8.8	409/7.0	403/7.1	394/7.1	390/7.1
	15	091/16.5	102/16.5	131/15.7	172/15.0	216/14.6	258/13.4	293/12.6	319/12.1	334/12.1	340/7.1	338/7.1	333/7.1	331/7.1
	17	084/17.5	092/17.5	114/17.0	146/16.5	181/15.7	215/15.1	244/14.6	266/14.6	279/14.6	285/14.6	285/14.6	282/14.6	281/14.6
	19	077/18.5	083/18.5	101/18.0	126/17.0	154/16.5	182/15.7	206/15.1	224/15.1	236/15.1	241/15.1	242/15.1	241/15.1	240/15.1
	21	071/19.6	075/19.6	089/19.0	110/18.0	133/17.0	156/16.3	176/15.6	191/15.1	202/15.1	207/15.1	208/15.1	207/15.1	207/15.1
15	7	058/10.8	115/7.1	226/5.7	355/5.7	480/5.7	587/5.7	665/5.7	708/6.3	715/6.3	687/6.4	635/6.5	580/6.7	555/6.7
	9	067/17.5	105/13.2	194/6.3	303/6.3	418/6.3	525/6.3	613/6.3	678/6.3	715/6.3	725/6.3	717/6.3	701/6.3	692/6.3
	11	071/17.5	097/17.5	161/11.2	246/6.3	339/6.3	428/6.3	508/6.3	570/6.3	614/6.3	638/6.3	666/6.3	645/6.3	643/6.3
	13	071/20.3	089/20.3	136/20.3	201/11.6	274/6.7	346/6.7	412/6.8	466/6.7	506/6.7	532/6.7	545/6.7	549/6.7	550/6.7
	15	068/20.3	081/20.3	116/20.3	167/15.6	224/14.6	283/14.6	336/14.6	382/14.6	416/14.6	440/14.6	453/6.3	459/6.3	461/6.3
	17	064/20.3	074/20.3	101/20.3	141/17.5	187/16.5	234/16.5	278/16.5	316/16.5	346/16.5	366/6.3	379/6.3	385/6.3	386/6.3
	19	060/20.9	067/20.9	088/20.3	120/20.3	158/19.3	197/18.3	233/17.5	265/17.5	290/17.5	308/17.5	319/17.5	325/17.5	326/17.5
	21	055/22.4	061/22.4	078/21.7	104/20.3	135/19.3	168/18.3	198/17.5	225/17.5	247/17.5	262/17.5	272/17.5	277/17.5	278/17.5
20	7	044/13.4	106/5.7	222/5.7	359/5.7	496/5.7	615/5.7	704/6.3	758/6.4	773/6.5	751/6.7	703/6.8	650/7.0	626/7.0
	9	049/13.4	093/13.4	189/6.3	311/6.3	444/6.3	573/6.3	686/6.3	774/7.1	834/7.1	866/7.3	870/7.3	870/7.3	866/7.3
	11	052/19.0	082/19.0	154/6.3	252/6.3	362/6.3	474/6.3	579/6.3	669/6.3	739/6.3	788/6.3	817/6.3	830/6.3	833/6.3
	13	052/23.3	073/23.3	128/23.3	204/6.5	292/6.7	384/6.7	472/6.7	551/6.5	616/6.7	664/6.7	696/6.7	713/6.7	718/6.7
	15	051/23.3	066/23.3	108/23.3	167/13.4	238/7.0	313/7.1	386/7.3	452/7.5	507/7.5	550/7.5	580/7.7	596/7.7	602/7.7
	17	049/26.2	060/26.2	092/23.3	140/18.3	197/17.1	258/17.1	318/17.3	373/17.3	420/17.3	457/17.3	483/17.3	498/17.3	503/17.3
	19	046/26.2	055/26.2	080/26.2	119/19.0	165/18.3	216/17.3	266/17.3	312/17.3	352/17.3	383/17.3	406/17.3	418/17.3	423/17.3
	21	044/27.3	050/27.3	071/26.2	102/19.0	141/18.3	183/17.3	225/17.3	264/17.3	298/17.3	325/17.3	344/17.3	355/17.3	359/17.3
25	7	041/16.5	103/5.7	222/5.7	366/6.3	510/6.3	636/6.3	733/6.5	791/6.7	808/6.7	787/6.8	738/7.1	683/7.3	657/7.3
	9	040/16.5	087/16.5	189/6.3	322/6.5	471/6.7	618/6.7	750/6.7	858/6.7	935/6.7	981/6.7	1001/6.7	1004/6.7	1003/6.7
	11	040/16.5	074/16.5	153/6.5	261/6.7	388/7.1	521/7.1	649/7.5	763/7.5	856/7.5	926/7.5	972/7.5	997/7.5	1005/7.5
	13	039/16.5	064/16.5	124/16.5	211/7.0	313/7.1	424/7.1	534/7.5	636/7.7	724/7.9	793/8.1	842/8.1	870/8.1	880/8.1
	15	039/24.2	057/16.5	104/16.5	172/7.0	255/7.1	345/7.5	437/7.7	523/7.9	599/8.1	661/8.1	705/8.1	732/8.1	741/8.3
	17	038/24.2	051/16.5	084/16.5	143/16.5	210/7.1	285/7.5	360/7.7	433/7.9	497/8.1	550/8.1	588/8.3	612/8.3	619/8.3
	19	036/33.1	047/33.1	076/16.5	120/16.5	176/7.1	238/7.7	301/7.7	361/7.9	416/8.1	461/8.1	494/8.3	514/8.3	521/8.3
	21	035/33.1	043/33.1	066/33.1	103/16.5	149/7.1	201/7.7	254/7.7	306/7.9	352/8.1	390/8.1	418/8.3	435/8.3	441/8.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	110/8.7	118/8.7	137/8.5	159/8.3	176/8.3	187/7.9	188/7.9	180/7.5	164/7.1	143/6.8	120/6.8	101/6.7	83/6.8
	9	147/10.8	153/10.8	169/10.8	188/10.8	203/8.7	211/8.5	210/8.3	200/8.3	184/8.3	163/8.1	141/7.9	124/7.9	108/7.9
	11	164/12.1	170/12.1	183/12.1	199/12.1	211/12.1	216/11.6	213/11.6	202/11.6	185/11.2	165/8.3	144/8.3	129/8.3	123/8.3
	13	169/13.7	174/13.7	187/13.7	202/13.4	213/13.4	217/13.4	214/13.1	202/13.1	185/12.8	165/12.6	144/12.6	129/12.1	124/12.1
	15	164/15.3	173/15.3	186/15.3	201/15.3	213/15.3	218/15.0	214/15.0	203/15.0	186/14.6	165/14.6	145/14.3	129/14.3	123/13.7
	17	163/17.0	168/17.0	182/17.0	197/17.0	207/17.0	216/17.0	213/17.0	203/17.0	186/16.5	165/16.5	144/16.5	128/15.3	121/15.0
	19	153/19.0	163/19.0	177/19.0	194/18.5	207/18.5	214/18.5	213/18.5	202/18.5	186/18.0	165/18.0	143/17.5	126/17.0	120/17.0
10	7	138/12.1	146/12.1	162/12.1	180/10.8	193/8.7	198/8.5	192/8.5	178/8.5	157/7.1	131/7.1	106/7.0	87/6.8	80/6.8
	9	192/13.1	197/13.1	209/13.1	222/12.8	231/12.1	230/12.1	220/11.2	201/8.7	177/8.5	151/8.3	128/8.1	111/8.1	104/8.1
	11	211/14.0	215/14.0	225/13.7	236/13.4	242/13.4	239/13.1	226/12.6	205/12.1	180/11.6	154/9.0	131/8.7	116/9.0	110/9.0
	13	211/14.6	215/14.6	225/14.6	235/14.3	241/14.3	238/14.3	225/14.0	205/13.4	180/13.4	154/13.1	131/12.8	115/12.6	109/12.6
	15	203/16.1	207/16.1	218/15.7	229/15.7	236/15.7	235/15.7	224/15.3	204/15.3	180/15.0	154/15.0	131/14.6	115/14.3	108/14.3
	17	192/17.5	197/17.5	208/17.5	221/17.5	230/17.5	230/17.5	220/17.5	203/17.5	180/17.0	154/17.0	131/16.5	114/16.5	107/16.5
	19	182/19.0	187/19.0	200/19.0	214/19.0	224/19.0	224/19.0	213/19.0	202/19.0	180/19.0	155/18.5	131/18.0	113/17.5	106/17.5
15	7	174/21.7	180/21.7	193/21.7	209/20.9	220/20.9	223/20.9	221/20.9	202/20.9	181/20.3	156/20.3	132/20.3	113/19.6	106/19.6
	9	233/17.5	236/17.5	244/17.5	250/17.5	251/17.5	241/17.5	229/17.5	215/17.5	181/17.5	156/17.5	132/17.5	113/17.5	106/17.5
	11	261/17.5	264/17.5	276/17.5	282/17.5	282/17.5	270/17.5	253/17.5	231/17.5	181/17.5	156/17.5	132/17.5	113/17.5	106/17.5
	13	261/17.5	264/17.5	276/17.5	282/17.5	282/17.5	270/17.5	253/17.5	231/17.5	181/17.5	156/17.5	132/17.5	113/17.5	106/17.5
	15	247/17.5	251/17.5	259/17.5	267/17.5	268/17.5	260/17.5	243/17.5	221/17.5	178/17.5	154/17.5	131/17.0	112/17.0	105/17.5
	17	229/17.5	232/17.5	242/17.5	252/17.5	256/17.5	250/17.5	233/17.5	207/17.5	177/17.5	154/17.0	131/17.0	112/17.0	105/17.5
	19	213/19.6	217/19.6	224/19.6	239/19.6	245/19.6	242/19.6	225/19.6	205/19.6	177/19.6	154/19.0	131/19.0	112/19.0	105/17.5
20	7	365/19.0	366/19.0	366/19.0	362/19.0	349/19.0	321/19.0	278/19.0	225/19.0	170/19.0	122/19.0	86/19.0	59/19.0	51/19.0
	9	398/19.0	398/19.0	398/19.0	394/19.0	379/19.0	349/19.0	303/19.0	246/19.0	181/19.0	139/19.0	106/19.0	87/19.0	81/19.0
	11	376/19.0	376/19.0	377/19.0	375/19.0	362/19.0	336/19.0	295/19.0	241/19.0	184/19.0	143/19.0	112/19.0	94/19.0	88/19.0
	13	340/23.3	341/23.3	344/23.3	344/23.3	336/23.3	314/23.3	278/23.3	223/23.3	180/23.3	142/23.3	112/23.3	94/23.3	88/23.3
	15	306/23.3	308/23.3	313/23.3	316/23.3	311/23.3	293/23.3	263/23.3	223/23.3	180/23.3	142/23.3	112/23.3	94/23.3	88/23.3
	17	277/23.3	280/23.3	286/23.3	291/23.3	290/23.3	276/23.3	251/23.3	216/23.3	176/23.3	142/23.3	112/23.3	94/23.3	88/23.3
	19	254/23.3	257/23.3	262/23.3	272/23.3	272/23.3	264/23.3	242/23.3	211/23.3	176/23.3	142/23.3	112/23.3	94/23.3	88/23.3
25	7	437/23.3	440/23.3	449/23.3	453/23.3	442/23.3	409/23.3	353/23.3	289/23.3	198/23.3	146/23.3	115/23.3	94/23.3	88/23.3
	9	477/23.3	480/23.3	488/23.3	493/23.3	482/23.3	449/23.3	393/23.3	329/23.3	229/23.3	166/23.3	126/23.3	107/23.3	101/23.3
	11	458/24.2	458/24.2	468/24.2	473/24.2	467/24.2	434/24.2	380/24.2	316/24.2	216/24.2	154/24.2	126/24.2	107/24.2	101/24.2
	13	412/24.2	413/24.2	424/24.2	431/24.2	437/24.2	404/24.2	350/24.2	286/24.2	198/24.2	146/24.2	115/24.2	94/24.2	88/24.2
	15	370/24.2	372/24.2	374/24.2	382/24.2	382/24.2	347/24.2	303/24.2	231/24.2	162/24.2	139/24.2	115/24.2	94/24.2	88/24.2
	17	335/29.9	337/29.9	340/29.9	342/29.9	342/29.9	317/29.9	285/29.9	224/29.9	179/29.9	146/29.9	115/29.9	94/29.9	88/29.9
	19	306/29.9	308/29.9	313/29.9	317/29.9	317/29.9	295/29.9	255/29.9	219/29.9	179/29.9	146/29.9	115/29.9	94/29.9	88/29.9
30	7	509/29.9	510/29.9	510/29.9	506/29.9	493/29.9	465/29.9	428/29.9	385/29.9	338/29.9	285/29.9	229/29.9	179/29.9	146/29.9
	9	549/29.9	550/29.9	550/29.9	546/29.9	533/29.9	505/29.9	468/29.9	425/29.9	378/29.9	325/29.9	269/29.9	219/29.9	179/29.9
	11	589/29.9	590/29.9	590/29.9	586/29.9	573/29.9	545/29.9	508/29.9	465/29.9	422/29.9	369/29.9	315/29.9	259/29.9	219/29.9
	13	629/29.9	630/29.9	630/29.9	626/29.9	613/29.9	585/29.9	548/29.9	505/29.9	462/29.9	409/29.9	355/29.9	299/29.9	259/29.9
	15	669/29.9	670/29.9	670/29.9	666/29.9	653/29.9	625/29.9	588/29.9	545/29.9	502/29.9	449/29.9	395/29.9	339/29.9	299/29.9
	17	709/29.9	710/29.9	710/29.9	706/29.9	693/29.9	665/29.9	628/29.9	585/29.9	542/29.9	489/29.9	435/29.9	379/29.9	339/29.9
	19	749/29.9	750/29.9	750/29.9	746/29.9	733/29.9	705/29.9	668/29.9	625/29.9	582/29.9	529/29.9	475/29.9	419/29.9	379/29.9
35	7	819/29.9	820/29.9	820/29.9	816/29.9	803/29.9	775/29.9	738/29.9	695/29.9	642/29.9	589/29.9	535/29.9	479/29.9	439/29.9
	9	859/29.9	860/29.9	860/29.9	856/29.9	843/29.9	815/29.9	778/29.9	735/29.9	682/29.9	629/29.9	575/29.9	519/29.9	479/29.9
	11	899/29.9	900/29.9	900/29.9	896/29.9	883/29.9	855/29.9	818/29.9	775/29.9	722/29.9	669/29.9	615/29.9	559/29.9	519/29.9
	13	939/29.9	940/29.9	940/29.9	936/29.9	923/29.9	895/29.9	858/29.9	815/29.9	762/29.9	709/29.9	655/29.9	599/29.9	559/29.9
	15	979/29.9	980/29.9	980/29.9	976/29.9	963/29.9	935/29.9	898/29.9	855/29.9	802/29.9	749/29.9	695/29.9	639/29.9	599/29.9
	17	1019/29.9	1020/29.9	1020/29.9	1016/29.9	1003/29.9	975/29.9	938/29.9	895/29.9	842/29.9	789/29.9	735/29.9	679/29.9	639/29.9
	19	1059/29.9	1060/29.9	1060/29.9	1056/29.9	1043/29.9	1015/29.9	978/29.9	935/29.9	882/29.9	829/29.9	775/29.9	719/29.9	679/29.9
40	7	1169/29.9	1170/29.9	1170/29.9	1166/29.9	1153/29.9	1125/29.9	1088/29.9	1045/29.9	992/29.9	939/29.9	885/29.9	829/29.9	789/29.9
	9	1209/29.9	1210/29.9	1210/29.9	1206/29.9	1193/29.9	1165/29.9	1128/29.9	1085/29.9	1032/29.9	979/29.9	925/29.9	869/29.9	829/29.9
	11	1249/29.9	1250/29.9	1250/29.9	1246/29.9	1233/29.9	1205/29.9	1168/29.9	1125/29.9	1072/29.9	1019/29.9	965/29.9	909/29.9	869/29.9
	13	1289/29.9	1290/29.9	1290/29.9	1286/29.9	1273/29.9	1245/29.9	1208/29.9	1165/29.9	1112/29.9	1059/29.9	1005/29.9	949/29.9	909/29.9
	15	1329/29.9	1330/29.9	1330/29.9	1326/29.9	1313/29.9	1285/29.9	1248/29.9	1205/29.9	1152/29.9	1099/29.9	1045/29.9	989/29.9	949/29.9
	17	1369/29.9	1370/29.9	1370/29.9	1366/29.9	1353/29.9	1325/29.9	1288/29.9	1245/29.9	1192/29.9	1139/29.9	1085/29.9	1029/29.9	989/29.9
	19	1409/29.9	1410/29.9	1410/29.9	1406/29.9	1393/29.9	1365/29.9	1328/29.9	1285/29.9	1232/29.9	1179/29.9	1125/29.9	1069/29.9	1029/29.9
45	7	1519/29.9	1520/29.9	1520/29.9	1516/29.9	1503/29.9	1475/29.9	1438/29.9	1395/29.9	1342/29.9	1289/29.9	1235/29.9	1179/29.9	1139/29.9
	9	1559/29.9	1560/29.9	1560/29.9	1556/29.9	1543/29.9	1515/29.9	1478/29.9	1435/29.9	1382/29.9	1329/29.9	1275/29.9	1219/29.9	1179/29.9
	11	1599/29.9	1600/29.9	1600/29.9	1596/29.9	1583/29.9	1555/29.9	1518/29.9	1475/29.9	1422/29.9	1369/29.9	1315/29.9	1259/29.9	1219/29.9
	13	1639/29.9	1640/29.9	1640/29.9	1636/29.9	1623/29.9	1595/29.9	1558/29.9	1515/29.9	1462/29.9	1409/29.9	1355/29.9	1299/29.9	1259/29.9
	15	1679/29.9	1680/29.9	1680/29.9	1676/29.9	1663/29.9	1635/29.9	1598/29.9	1555/29.9	1502/29.9	1449/29.9	1395/29.9	1339/29.9	1299/29.9
	17	1719/29.9	1720/29.9	1720/29.9	1716/29.9	1703/29.9	1675/29.9	1638/29.9	1595/29.9	1542/29.9	1489/29.9	1435/29.9	1379/29.9	1339/29.9
	19	1759/29.9	1760/29.9	1760/29.9	1756/29.9	1743/29.9	1715/29.9	1678/29.9	1635/29.9	1582/29.9	1529/29.9	1475/29.9	1419/29.9	1379/29.9
50	7	1869/29.9	1870/29.9	1870/29.9	1866/29.9	1853/29.9	1825/29.9	1788/29.9	1745/29.9	1692/29.9	1639/29.9	1585/29.9	1529/29.9	1489/29.9
	9	1909/29.9	1910/29.9	1910/29.9	1906/29.9	1893/29.9	1865/29.9	1828/29.9	1785/29.9	1732/29.9	1679/29.9	1625/29.9	1569/29.9	1529/29.9
	11	1949/29.9	1950/29.9	1950/29.9	1946/29.9	1933/29.9	1905/29.9	1868/29.9	1825/29.9	1772/29.9	1719/29.9	1665/29.9	1609/29.9	1569/29.9
	13	1989/29.9	1990/29.9	1990/29.9	1986/29.9	1973/29.9	1945/29.9	1908/29.9	1865/29.9	1812/29.9	1759/			

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.083/ 8.7	.092/ 8.5	.112/ 8.3	.136/ 8.3	.157/ 7.9	.171/ 7.5	.177/ 7.1	.175/ 6.8	.163/ 6.5	.144/ 6.4	.122/ 6.4	.102/ 6.4	.093/ 6.4
	9	.095/10.5	.102/ 8.7	.118/ 8.7	.137/ 8.5	.154/ 8.3	.166/ 8.3	.171/ 8.3	.168/ 7.9	.158/ 7.7	.143/ 7.5	.124/ 7.5	.109/ 7.5	.103/ 7.5
	11	.095/11.6	.100/11.6	.112/11.6	.126/11.2	.139/11.2	.146/ 8.3	.151/ 8.3	.148/ 8.3	.140/ 8.1	.127/ 8.1	.112/ 7.9	.100/ 7.9	.095/ 7.9
	13	.088/12.6	.092/12.6	.102/12.6	.114/12.6	.124/12.6	.131/12.1	.133/12.1	.130/11.6	.122/ 8.3	.111/ 8.3	.098/ 8.1	.089/ 8.1	.085/ 8.1
	15	.080/13.7	.084/13.7	.092/13.7	.102/13.7	.111/13.7	.116/13.4	.118/13.4	.115/13.1	.108/13.1	.098/12.8	.087/12.6	.078/12.6	.075/12.6
	17	.072/14.6	.075/15.0	.083/15.0	.092/15.0	.099/15.0	.104/15.0	.105/15.0	.102/15.0	.096/14.6	.087/14.3	.077/14.3	.070/13.4	.067/13.1
	19	.065/15.7	.068/16.1	.074/16.5	.083/16.5	.090/16.5	.094/16.5	.095/16.5	.092/16.5	.086/16.1	.078/15.7	.069/15.3	.062/14.6	.059/14.6
10	7	.084/12.1	.093/12.1	.113/ 8.5	.135/ 8.5	.155/ 8.5	.168/ 8.5	.173/ 7.0	.170/ 7.0	.157/ 6.7	.139/ 6.7	.116/ 6.5	.097/ 6.5	.089/ 6.5
	9	.103/13.1	.109/12.8	.123/12.6	.140/12.1	.156/11.2	.166/ 8.5	.169/ 8.5	.165/ 8.3	.154/ 7.9	.137/ 7.7	.121/ 7.5	.106/ 7.5	.100/ 7.5
	11	.103/13.4	.108/13.4	.118/13.4	.131/13.1	.143/12.5	.150/12.1	.151/12.1	.147/ 8.5	.137/ 8.5	.124/ 8.3	.108/ 8.3	.098/ 8.3	.094/ 8.3
	13	.096/14.6	.099/14.0	.108/14.0	.119/14.3	.128/13.4	.133/13.4	.134/12.8	.129/12.5	.120/12.1	.108/ 8.5	.096/ 8.5	.086/ 8.7	.083/ 8.7
	15	.087/14.6	.090/14.6	.097/14.6	.106/14.3	.114/14.3	.119/14.0	.118/14.0	.114/13.7	.106/13.4	.095/13.1	.084/12.8	.076/ 9.0	.073/ 9.0
	17	.077/15.3	.080/15.3	.087/15.3	.095/15.3	.102/15.3	.109/15.3	.106/15.3	.102/15.0	.094/15.0	.085/14.6	.075/14.6	.067/14.3	.064/14.3
	19	.069/16.5	.072/16.5	.078/16.5	.086/16.5	.092/16.5	.095/17.0	.095/17.0	.092/17.0	.085/16.5	.076/16.5	.067/15.7	.060/15.0	.057/15.0
15	7	.093/14.3	.100/14.3	.119/14.3	.140/14.3	.157/14.3	.168/14.3	.171/10.5	.165/ 7.3	.151/ 7.1	.132/ 7.0	.110/ 6.5	.091/ 6.4	.083/ 6.4
	9	.113/17.5	.118/17.5	.131/14.3	.147/14.3	.160/14.3	.169/14.3	.169/14.3	.162/ 7.9	.150/ 7.9	.133/ 7.7	.116/ 7.7	.101/ 7.7	.096/ 7.7
	11	.111/17.5	.115/17.5	.126/17.5	.138/14.3	.148/14.3	.153/14.3	.152/14.3	.146/14.3	.135/ 8.5	.120/ 8.5	.106/ 8.3	.095/ 8.3	.090/ 8.3
	13	.102/17.5	.105/17.5	.114/17.5	.124/17.5	.132/14.3	.136/14.3	.135/14.3	.128/14.3	.118/12.1	.106/ 9.0	.093/ 9.0	.084/ 9.0	.080/ 9.0
	15	.091/17.5	.094/17.5	.101/17.5	.110/17.5	.117/17.5	.121/14.3	.119/14.3	.114/14.3	.104/14.3	.093/13.4	.082/ 9.5	.073/ 9.2	.070/ 9.2
	17	.080/17.5	.083/17.5	.090/17.5	.098/17.5	.105/17.5	.108/17.5	.106/17.5	.101/17.5	.093/15.3	.083/15.0	.072/14.6	.065/14.3	.062/14.3
	19	.071/17.5	.074/17.5	.080/17.5	.088/17.5	.094/17.5	.097/17.5	.096/17.5	.091/17.5	.083/17.0	.074/17.0	.065/16.5	.058/16.5	.055/15.3
20	7	.064/17.5	.066/17.5	.072/17.5	.079/17.5	.085/17.5	.088/17.5	.087/17.5	.083/17.5	.076/18.0	.067/18.0	.059/17.5	.052/17.0	.049/17.0
	9	.086/13.4	.104/13.4	.122/13.4	.143/13.4	.159/13.4	.169/13.4	.170/13.4	.162/13.4	.147/13.4	.127/ 7.7	.105/ 6.4	.086/ 6.4	.079/ 6.4
	11	.113/19.0	.119/19.0	.133/13.4	.149/13.4	.162/13.4	.169/13.4	.168/13.4	.160/13.4	.147/13.4	.129/ 8.1	.111/ 7.9	.097/ 7.7	.091/ 7.7
	13	.110/19.0	.114/19.0	.126/19.0	.139/19.0	.149/19.0	.154/13.4	.152/13.4	.145/13.4	.132/13.4	.117/ 8.7	.103/ 8.7	.092/ 8.5	.087/ 8.5
	15	.100/19.0	.104/19.0	.113/19.0	.124/19.0	.133/19.0	.136/19.0	.135/13.4	.128/13.4	.116/13.4	.103/13.4	.091/ 9.2	.081/ 9.2	.078/ 9.2
	17	.089/23.3	.093/19.0	.101/19.0	.111/19.0	.118/19.0	.121/19.0	.119/19.0	.113/13.4	.103/13.4	.091/13.4	.079/10.1	.071/10.1	.068/10.1
	19	.080/23.3	.083/23.3	.090/19.0	.099/19.0	.105/19.0	.108/19.0	.106/19.0	.100/19.0	.091/13.4	.081/15.0	.070/15.0	.062/14.6	.059/10.1
25	7	.071/23.3	.074/23.3	.081/23.3	.088/19.0	.094/19.0	.097/19.0	.095/19.0	.090/19.0	.082/19.0	.072/17.0	.063/17.0	.055/16.5	.053/16.5
	9	.064/23.3	.067/23.3	.073/23.3	.080/19.0	.086/19.0	.088/19.0	.087/19.0	.082/19.0	.075/19.0	.065/18.0	.057/18.0	.050/17.5	.047/17.5
	11	.082/16.5	.091/16.5	.111/16.5	.132/16.5	.149/16.5	.159/16.5	.161/16.5	.154/16.5	.140/ 8.7	.120/ 8.7	.098/ 6.5	.080/ 6.5	.073/ 6.5
	13	.096/16.5	.103/16.5	.120/16.5	.138/16.5	.152/16.5	.160/16.5	.161/16.5	.154/16.5	.141/16.5	.123/16.5	.105/ 7.5	.091/ 7.5	.086/ 7.5
	15	.096/16.5	.102/16.5	.115/16.5	.130/16.5	.142/16.5	.148/16.5	.147/16.5	.140/16.5	.128/16.5	.113/16.5	.098/ 9.0	.087/ 8.7	.083/ 8.7
	17	.091/16.5	.095/16.5	.106/16.5	.119/16.5	.128/16.5	.132/16.5	.131/16.5	.125/16.5	.114/16.5	.100/16.5	.087/ 9.5	.078/ 9.2	.074/ 9.2
	19	.083/24.2	.087/24.2	.097/16.5	.107/16.5	.115/16.5	.118/16.5	.117/16.5	.111/16.5	.100/16.5	.088/16.5	.077/11.2	.068/10.5	.065/10.1
	15	.076/24.2	.080/24.2	.088/16.5	.097/16.5	.104/16.5	.106/16.5	.105/16.5	.099/16.5	.090/16.5	.078/16.5	.068/15.0	.060/11.2	.057/11.2
	17	.069/24.2	.072/24.2	.080/24.2	.088/16.5	.094/16.5	.096/16.5	.095/16.5	.089/16.5	.081/16.5	.070/16.5	.061/17.0	.053/16.5	.051/16.5
	19	.064/24.2	.066/24.2	.073/24.2	.080/24.2	.086/24.2	.088/16.5	.087/16.5	.081/16.5	.073/16.5	.064/16.5	.055/18.0	.048/18.0	.045/17.5
	21	.056/24.2	.058/24.2	.065/24.2	.072/24.2	.078/24.2	.080/16.5	.079/16.5	.073/16.5	.064/16.5	.055/18.0	.048/18.0	.041/18.0	.038/17.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

0

DE 1040

SHORTCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.206/ 8.3	.237/ 8.3	.311/ 7.9	.399/ 7.5	.481/ 7.0	.543/ 6.7	.577/ 6.3	.579/ 6.3	.550/ 6.3	.493/ 6.3	.417/ 6.3	.344/ 6.3	.311/ 6.3	
	9	.207/ 8.7	.229/ 8.7	.283/ 8.3	.349/ 8.3	.412/ 8.3	.461/ 7.9	.489/ 7.5	.492/ 7.1	.471/ 6.8	.429/ 6.8	.374/ 6.8	.324/ 6.8	.302/ 6.8	
	11	.185/10.8	.201/10.8	.239/ 8.7	.287/ 8.7	.333/ 8.3	.369/ 8.3	.390/ 7.9	.393/ 7.9	.377/ 7.5	.346/ 7.5	.306/ 7.3	.271/ 7.3	.256/ 7.3	
	13	.159/11.6	.170/11.6	.199/11.6	.235/ 8.5	.270/ 8.3	.297/ 8.3	.312/ 8.3	.314/ 7.9	.302/ 7.9	.278/ 7.9	.241/ 7.7	.210/ 7.7	.197/ 7.7	
	15	.135/12.1	.144/12.1	.166/12.1	.194/12.1	.221/ 8.3	.242/ 8.3	.255/ 8.3	.255/ 8.1	.245/ 7.9	.225/ 7.9	.201/ 7.7	.181/ 7.7	.172/ 7.7	
	17	.115/12.6	.122/12.6	.140/12.6	.162/12.6	.184/12.6	.201/ 8.3	.210/ 8.3	.211/ 8.1	.202/ 7.9	.186/ 7.9	.166/ 7.9	.150/ 7.9	.143/ 7.9	
	19	.098/13.1	.104/13.1	.119/13.1	.137/13.1	.155/13.1	.169/13.1	.177/ 8.3	.177/ 8.3	.169/ 7.9	.156/ 7.9	.139/ 7.9	.125/ 7.9	.120/ 7.9	
21	.084/13.4	.089/13.4	.102/13.7	.116/14.0	.133/14.0	.144/14.0	.150/14.0	.150/14.0	.144/ 7.9	.132/ 7.9	.118/ 7.9	.107/ 7.9	.102/ 7.9		
10	7	.175/ 8.5	.207/ 8.5	.283/ 8.5	.374/ 7.0	.461/ 6.7	.530/ 6.7	.571/ 6.4	.580/ 6.3	.557/ 6.3	.505/ 6.3	.432/ 6.3	.361/ 6.3	.329/ 6.3	
	9	.185/12.1	.206/12.1	.259/12.1	.327/ 8.5	.394/ 8.5	.449/ 7.1	.485/ 7.1	.496/ 7.0	.482/ 7.0	.445/ 6.8	.394/ 6.8	.346/ 7.0	.325/ 7.0	
	11	.170/13.1	.184/13.1	.222/12.8	.271/12.1	.320/ 8.5	.362/ 8.5	.389/ 8.3	.398/ 7.3	.389/ 7.3	.362/ 7.3	.325/ 7.3	.292/ 7.5	.278/ 7.5	
	13	.147/13.4	.158/13.4	.186/13.4	.223/13.1	.260/12.6	.292/ 8.5	.312/ 8.3	.319/ 8.3	.311/ 7.9	.291/ 7.7	.263/ 7.7	.238/ 7.7	.227/ 7.7	
	15	.126/13.7	.134/13.7	.156/13.7	.185/13.7	.214/13.1	.238/12.6	.254/ 8.5	.259/ 8.3	.252/ 8.1	.236/ 7.9	.214/ 7.9	.194/ 7.9	.186/ 7.9	
	17	.107/14.0	.114/14.0	.132/14.0	.155/13.7	.178/13.4	.198/13.4	.210/13.1	.214/ 8.3	.208/ 8.3	.194/ 8.1	.176/ 8.1	.160/ 8.1	.153/ 8.1	
	19	.092/14.3	.097/14.3	.112/14.3	.131/14.0	.151/14.0	.166/13.7	.176/13.7	.179/13.4	.174/ 8.3	.162/ 8.1	.147/ 8.1	.134/ 8.1	.128/ 8.3	
21	.079/14.3	.084/14.3	.097/14.3	.113/14.3	.129/14.3	.142/14.3	.150/14.3	.152/14.3	.147/ 8.3	.137/ 8.3	.124/ 8.1	.113/ 8.3	.109/ 8.3		
15	7	.154/14.3	.185/14.3	.260/14.3	.352/ 7.3	.442/ 7.1	.514/ 7.1	.560/ 7.0	.575/ 6.7	.558/ 5.7	.510/ 5.7	.441/ 5.7	.371/ 6.3	.340/ 6.3	
	9	.165/14.3	.186/14.3	.239/14.3	.308/14.3	.378/14.3	.438/ 7.5	.479/ 7.3	.496/ 7.1	.487/ 7.1	.455/ 7.0	.407/ 6.8	.360/ 6.8	.341/ 6.8	
	11	.152/17.5	.167/17.5	.204/14.3	.253/14.3	.308/14.3	.354/14.3	.386/ 7.7	.400/ 7.7	.395/ 7.7	.372/ 7.7	.338/ 7.7	.306/ 7.7	.293/ 7.7	
	13	.132/17.5	.143/17.5	.172/14.3	.210/14.3	.250/14.3	.286/14.3	.311/ 7.9	.322/ 7.9	.318/ 7.9	.300/ 7.9	.274/ 7.9	.251/ 7.9	.241/ 7.9	
	15	.113/17.5	.122/17.5	.145/17.5	.175/17.5	.206/14.3	.234/14.3	.253/14.3	.261/ 8.1	.257/ 8.1	.243/ 8.1	.223/ 8.1	.204/ 8.1	.197/ 8.1	
	17	.097/17.5	.104/17.5	.122/17.5	.147/17.5	.172/14.3	.194/14.3	.209/14.3	.215/14.3	.212/ 8.1	.200/ 8.1	.183/ 8.1	.168/ 8.1	.162/ 8.1	
	19	.083/17.5	.089/17.5	.104/17.5	.124/17.5	.145/14.3	.163/14.3	.175/14.3	.180/14.3	.177/ 8.1	.167/ 8.1	.153/ 8.3	.140/ 8.3	.135/ 8.3	
21	.072/17.5	.077/17.5	.090/17.5	.107/17.5	.124/17.5	.139/14.3	.149/14.3	.153/14.3	.150/ 8.3	.141/ 8.3	.129/ 8.3	.119/ 8.3	.114/ 8.3		
20	7	.130/13.4	.161/13.4	.237/13.4	.331/13.4	.424/13.4	.501/13.4	.552/13.4	.572/ 5.7	.558/ 5.7	.514/ 5.7	.448/ 6.3	.380/ 6.3	.349/ 6.3	
	9	.136/13.4	.157/13.4	.213/13.4	.285/13.4	.361/13.4	.427/13.4	.474/13.4	.497/ 7.9	.493/ 7.5	.464/ 6.7	.418/ 6.7	.373/ 6.8	.354/ 6.8	
	11	.124/19.0	.140/19.0	.181/13.4	.235/13.4	.293/13.4	.345/13.4	.383/13.4	.403/ 8.1	.402/ 7.9	.382/ 7.9	.350/ 7.5	.319/ 7.3	.304/ 7.3	
	13	.109/19.0	.121/19.0	.152/19.0	.194/13.4	.238/13.4	.278/13.4	.308/13.4	.324/13.4	.324/ 8.3	.309/ 8.1	.285/ 8.1	.262/ 8.1	.252/ 8.1	
	15	.094/19.0	.104/19.0	.129/19.0	.161/13.4	.196/13.4	.228/13.4	.251/13.4	.263/13.4	.262/ 8.3	.250/ 8.3	.231/ 8.3	.213/ 8.3	.208/ 8.3	
	17	.081/19.0	.089/19.0	.109/19.0	.136/19.0	.164/13.4	.189/13.4	.207/13.4	.217/13.4	.216/ 8.5	.206/ 8.3	.190/ 8.5	.176/ 8.5	.170/ 8.5	
	19	.070/19.0	.077/19.0	.094/19.0	.116/19.0	.139/19.0	.159/13.4	.174/13.4	.181/13.4	.180/13.4	.171/ 8.5	.158/ 8.5	.146/ 8.7	.141/ 8.7	
21	.061/19.0	.067/19.0	.081/19.0	.100/19.0	.119/19.0	.136/19.0	.148/13.4	.154/13.4	.153/13.4	.145/ 8.5	.134/ 8.7	.123/ 8.7	.119/ 8.7		
25	7	.099/16.5	.130/16.5	.206/ 8.7	.303/ 8.7	.399/ 8.7	.479/ 8.7	.535/ 8.7	.559/ 8.7	.551/ 5.7	.511/ 5.7	.447/ 6.3	.381/ 6.3	.350/ 6.3	
	9	.101/16.5	.124/16.5	.181/16.5	.257/16.5	.336/16.5	.407/16.5	.460/16.5	.488/ 8.7	.489/ 6.7	.464/ 6.7	.421/ 6.8	.378/ 6.8	.359/ 6.8	
	11	.095/16.5	.111/16.5	.155/16.5	.212/16.5	.274/16.5	.331/16.5	.375/16.5	.399/16.5	.402/ 8.7	.386/ 7.3	.356/ 7.3	.326/ 7.3	.313/ 7.3	
	13	.085/16.5	.098/16.5	.131/16.5	.176/16.5	.224/16.5	.268/16.5	.302/16.5	.322/16.5	.325/ 8.7	.312/ 8.7	.290/ 7.7	.268/ 7.7	.259/ 7.7	
	15	.075/16.5	.086/16.5	.112/16.5	.147/16.5	.185/16.5	.220/16.5	.247/16.5	.262/16.5	.264/ 8.7	.254/ 8.7	.236/ 8.7	.219/ 8.5	.212/ 8.5	
	17	.067/16.5	.075/16.5	.096/16.5	.125/16.5	.155/16.5	.183/16.5	.204/16.5	.216/16.5	.217/ 8.7	.209/ 8.7	.194/ 8.7	.180/ 8.7	.174/ 9.0	
	19	.059/16.5	.066/16.5	.084/16.5	.107/16.5	.132/16.5	.154/16.5	.171/16.5	.181/16.5	.181/16.5	.174/ 9.0	.162/ 9.0	.150/ 9.0	.145/ 9.0	
21	.052/16.5	.054/16.5	.073/16.5	.093/16.5	.113/16.5	.132/16.5	.146/16.5	.154/16.5	.154/16.5	.147/ 9.0	.136/ 9.0	.126/ 9.0	.122/ 9.0		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.165/9.8	.172/9.8	.188/9.8	.208/9.2	.225/8.1	.234/7.5	.244/7.0	.243/6.8	.235/6.7	.222/6.7	.209/6.7	.199/6.7	.196/6.7	
	9	.241/11.2	.243/11.2	.249/11.2	.266/10.8	.264/10.5	.271/10.1	.277/9.0	.280/8.3	.282/8.1	.282/8.1	.287/7.9	.282/7.9	.282/7.9	
	11	.280/12.6	.280/12.6	.289/12.6	.299/12.1	.294/12.1	.291/11.6	.284/10.8	.289/10.5	.295/10.1	.302/9.2	.307/9.2	.312/9.2	.313/9.2	
	13	.292/14.0	.291/14.0	.288/14.0	.284/13.7	.282/13.4	.279/13.1	.277/12.8	.281/12.6	.288/12.6	.294/11.6	.310/11.2	.316/11.2	.318/11.2	
	15	.293/15.7	.292/15.7	.288/15.7	.284/15.3	.279/15.3	.277/15.0	.274/14.6	.281/14.3	.288/14.0	.294/13.4	.310/12.6	.316/12.6	.318/12.6	
	17	.288/17.5	.287/17.5	.284/17.5	.279/17.5	.275/17.0	.272/17.0	.267/16.5	.275/16.5	.281/16.1	.289/15.3	.296/14.6	.301/14.6	.302/14.6	
	19	.283/19.6	.281/19.6	.278/19.6	.274/19.6	.270/19.0	.267/19.0	.262/18.5	.270/18.0	.275/17.5	.281/17.0	.287/16.5	.292/16.5	.293/16.5	
	21	.278/22.4	.277/22.4	.275/22.4	.271/21.7	.267/21.7	.265/20.9	.265/20.9	.267/20.3	.271/19.6	.276/19.6	.281/19.6	.285/19.6	.286/19.6	
	10	7	.140/13.4	.147/13.4	.162/13.4	.180/13.4	.197/8.7	.204/8.5	.215/7.0	.215/6.8	.208/6.8	.198/6.8	.186/6.8	.178/6.8	.175/6.8
		9	.213/14.0	.215/14.0	.221/14.0	.239/13.7	.237/13.7	.245/10.8	.251/9.0	.256/8.3	.259/8.3	.260/8.1	.261/8.1	.261/8.1	.261/8.1
11		.252/16.6	.252/16.6	.253/16.6	.254/16.6	.255/16.3	.258/13.4	.262/12.1	.269/10.8	.275/10.1	.282/9.5	.288/9.2	.293/9.2	.294/9.2	
13		.267/16.1	.266/15.7	.265/15.7	.262/15.3	.261/15.3	.261/15.3	.261/15.3	.269/12.8	.277/12.1	.282/11.6	.289/11.2	.295/11.2	.297/11.2	
15		.271/17.5	.270/17.5	.267/17.0	.264/17.0	.261/16.5	.260/16.5	.258/16.5	.266/16.5	.273/14.3	.282/14.0	.289/13.1	.295/12.8	.297/12.8	
17		.269/19.6	.268/19.6	.265/19.6	.262/18.5	.259/18.5	.257/18.0	.255/17.5	.262/16.5	.268/16.5	.275/15.7	.282/15.3	.287/14.6	.289/14.6	
19		.266/21.7	.265/21.7	.263/20.9	.259/20.9	.256/20.3	.255/19.6	.255/19.6	.258/18.0	.263/18.0	.270/17.5	.275/17.0	.280/16.5	.281/16.5	
21		.264/24.2	.263/23.3	.261/23.3	.258/22.4	.255/22.4	.254/21.7	.254/20.9	.256/20.3	.261/20.3	.266/19.6	.271/19.6	.274/19.6	.276/19.6	
15		7	.124/17.5	.129/17.5	.143/17.5	.161/17.5	.177/14.3	.189/14.3	.196/7.1	.195/7.0	.189/7.0	.179/7.0	.167/7.0	.158/7.0	.155/7.0
		9	.191/17.5	.193/17.5	.199/17.5	.207/17.5	.216/17.5	.224/14.3	.231/14.3	.236/8.5	.239/8.3	.240/8.3	.239/8.3	.239/8.1	.239/8.1
	11	.228/20.3	.228/20.3	.230/20.3	.232/20.3	.235/17.5	.239/17.5	.244/14.3	.251/11.2	.257/10.5	.263/10.1	.269/9.5	.272/9.5	.273/9.2	
	13	.244/20.3	.244/20.3	.243/20.3	.242/20.3	.242/20.3	.247/14.3	.253/14.3	.253/14.3	.261/12.6	.268/11.6	.275/11.2	.280/11.2	.282/11.2	
	15	.250/20.3	.250/20.3	.248/20.3	.246/20.3	.244/20.3	.245/17.5	.247/17.5	.252/15.0	.259/14.3	.267/14.3	.274/13.7	.278/13.1	.280/12.8	
	17	.251/20.3	.250/20.3	.248/20.3	.246/20.3	.244/20.3	.243/19.6	.245/17.5	.249/17.5	.255/16.5	.262/16.5	.268/15.7	.273/15.0	.274/15.0	
	19	.250/23.3	.249/23.3	.248/22.4	.245/22.4	.243/20.9	.243/20.9	.244/20.3	.247/19.6	.252/18.5	.258/17.5	.263/17.0	.267/17.0	.268/16.5	
	21	.250/25.1	.249/25.1	.248/25.1	.246/24.2	.244/24.2	.243/22.4	.244/20.9	.246/20.9	.251/20.3	.255/19.6	.260/19.6	.263/19.6	.264/19.6	
	20	7	.113/13.4	.118/13.4	.131/13.4	.147/13.4	.163/13.4	.176/13.4	.183/13.4	.184/13.4	.179/7.1	.169/7.0	.158/7.0	.149/7.0	.145/7.0
		9	.173/23.3	.175/19.0	.181/19.0	.190/19.0	.199/19.0	.209/19.0	.218/19.0	.224/13.4	.228/8.3	.229/8.3	.228/8.1	.227/8.1	.227/8.1
11		.207/23.3	.208/23.3	.210/23.3	.213/23.3	.217/19.0	.223/19.0	.231/19.0	.238/13.4	.245/10.1	.251/10.1	.256/9.8	.259/9.5	.260/9.5	
13		.224/26.2	.224/26.2	.223/26.2	.224/26.2	.225/23.3	.229/23.3	.234/19.0	.241/13.4	.249/13.4	.256/12.1	.263/11.2	.267/11.2	.268/11.2	
15		.231/26.2	.231/26.2	.230/26.2	.229/26.2	.229/26.2	.231/23.3	.235/19.0	.241/15.0	.248/14.6	.255/14.3	.262/14.0	.266/13.7	.267/13.4	
17		.234/26.2	.233/26.2	.232/26.2	.231/26.2	.230/26.2	.231/23.3	.234/19.0	.241/15.0	.245/16.5	.251/16.5	.257/16.1	.261/16.1	.262/16.1	
19		.235/27.3	.234/27.3	.233/27.3	.232/27.3	.231/26.2	.231/23.3	.233/23.3	.237/19.0	.242/19.0	.248/18.0	.253/17.0	.258/17.0	.257/17.0	
21		.236/27.3	.236/27.3	.235/27.3	.233/27.3	.232/26.2	.232/26.2	.234/23.3	.237/20.9	.241/20.3	.246/19.6	.250/19.6	.253/19.6	.254/19.6	
25		7	.104/16.5	.109/16.5	.121/16.5	.137/16.5	.153/16.5	.166/16.5	.177/16.5	.177/16.5	.173/6.8	.164/7.0	.153/7.1	.143/7.1	.139/7.1
		9	.156/16.5	.159/16.5	.165/16.5	.174/16.5	.186/16.5	.198/16.5	.209/16.5	.218/16.5	.224/8.7	.227/7.9	.226/7.9	.226/7.9	.226/7.9
	11	.187/34.9	.188/34.9	.190/34.9	.195/34.9	.202/16.5	.209/16.5	.216/16.5	.224/16.5	.231/16.5	.238/16.5	.245/16.5	.252/16.5	.258/16.5	
	13	.203/33.1	.203/33.1	.204/33.1	.205/33.1	.209/16.5	.216/16.5	.224/16.5	.231/16.5	.238/16.5	.245/16.5	.252/16.5	.259/16.5	.266/16.5	
	15	.211/33.1	.211/33.1	.211/33.1	.212/33.1	.214/24.2	.218/24.2	.224/16.5	.230/16.5	.237/16.5	.244/16.5	.251/16.5	.258/16.5	.265/16.5	
	17	.215/33.1	.215/33.1	.214/33.1	.213/33.1	.212/33.1	.211/33.1	.210/33.1	.210/33.1	.210/33.1	.210/33.1	.210/33.1	.210/33.1	.210/33.1	
	19	.218/33.1	.218/33.1	.217/33.1	.217/33.1	.216/33.1	.215/33.1	.214/33.1	.214/33.1	.214/33.1	.214/33.1	.214/33.1	.214/33.1	.214/33.1	
	21	.221/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	.220/33.1	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED

RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

OE

AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES										SHIP HEADING ANGLE IN DEGREES									
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285
5	7	.121/9.8	.131/9.5	.141/9.2	.151/8.9	.161/8.6	.171/8.3	.181/8.0	.191/7.7	.201/7.4	.211/7.1	.221/6.8	.231/6.5	.241/6.2	.251/5.9	.261/5.6	.271/5.3	.281/5.0	.291/4.7	.301/4.4	.311/4.1
9	9	.149/10.8	.154/10.5	.159/10.2	.164/9.9	.169/9.6	.174/9.3	.179/9.0	.184/8.7	.189/8.4	.194/8.1	.204/7.8	.214/7.5	.224/7.2	.234/6.9	.244/6.6	.254/6.3	.264/6.0	.274/5.7	.284/5.4	.294/5.1
11	11	.154/11.6	.159/11.3	.164/11.0	.169/10.7	.174/10.4	.179/10.1	.184/9.8	.189/9.5	.194/9.2	.204/8.9	.214/8.6	.224/8.3	.234/8.0	.244/7.7	.254/7.4	.264/7.1	.274/6.8	.284/6.5	.294/6.2	.304/5.9
13	13	.146/12.8	.151/12.5	.156/12.2	.161/11.9	.166/11.6	.171/11.3	.176/11.0	.181/10.7	.186/10.4	.191/10.1	.201/9.8	.211/9.5	.221/9.2	.231/8.9	.241/8.6	.251/8.3	.261/8.0	.271/7.7	.281/7.4	.291/7.1
15	15	.135/14.0	.140/13.7	.145/13.4	.150/13.1	.155/12.8	.160/12.5	.165/12.2	.170/11.9	.175/11.6	.180/11.3	.185/11.0	.190/10.7	.200/10.4	.210/10.1	.220/9.8	.230/9.5	.240/9.2	.250/8.9	.260/8.6	.270/8.3
17	17	.123/15.3	.128/15.0	.133/14.7	.138/14.4	.143/14.1	.148/13.8	.153/13.5	.158/13.2	.163/12.9	.168/12.6	.173/12.3	.178/12.0	.183/11.7	.188/11.4	.193/11.1	.198/10.8	.203/10.5	.208/10.2	.213/9.9	.218/9.6
19	19	.112/17.0	.117/16.7	.122/16.4	.127/16.1	.132/15.8	.137/15.5	.142/15.2	.147/14.9	.152/14.6	.157/14.3	.162/14.0	.167/13.7	.172/13.4	.177/13.1	.182/12.8	.187/12.5	.192/12.2	.197/11.9	.202/11.6	.207/11.3
21	21	.102/19.0	.107/18.7	.112/18.4	.117/18.1	.122/17.8	.127/17.5	.132/17.2	.137/16.9	.142/16.6	.147/16.3	.152/16.0	.157/15.7	.162/15.4	.167/15.1	.172/14.8	.177/14.5	.182/14.2	.187/13.9	.192/13.6	.197/13.3
10	7	.083/13.4	.088/13.1	.093/12.8	.098/12.5	.103/12.2	.108/11.9	.113/11.6	.118/11.3	.123/11.0	.128/10.7	.133/10.4	.138/10.1	.143/9.8	.148/9.5	.153/9.2	.158/8.9	.163/8.6	.168/8.3	.173/8.0	.178/7.7
9	9	.107/13.7	.112/13.4	.117/13.1	.122/12.8	.127/12.5	.132/12.2	.137/11.9	.142/11.6	.147/11.3	.152/11.0	.157/10.7	.162/10.4	.167/10.1	.172/9.8	.177/9.5	.182/9.2	.187/8.9	.192/8.6	.197/8.3	.202/8.0
11	11	.115/14.3	.120/14.0	.125/13.7	.130/13.4	.135/13.1	.140/12.8	.145/12.5	.150/12.2	.155/11.9	.160/11.6	.165/11.3	.170/11.0	.175/10.7	.180/10.4	.185/10.1	.190/9.8	.195/9.5	.200/9.2	.205/8.9	.210/8.6
13	13	.112/15.0	.117/14.7	.122/14.4	.127/14.1	.132/13.8	.137/13.5	.142/13.2	.147/12.9	.152/12.6	.157/12.3	.162/12.0	.167/11.7	.172/11.4	.177/11.1	.182/10.8	.187/10.5	.192/10.2	.197/9.9	.202/9.6	.207/9.3
15	15	.106/16.1	.111/15.8	.116/15.5	.121/15.2	.126/14.9	.131/14.6	.136/14.3	.141/14.0	.146/13.7	.151/13.4	.156/13.1	.161/12.8	.166/12.5	.171/12.2	.176/11.9	.181/11.6	.186/11.3	.191/11.0	.196/10.7	.201/10.4
17	17	.098/17.5	.103/17.2	.108/16.9	.113/16.6	.118/16.3	.123/16.0	.128/15.7	.133/15.4	.138/15.1	.143/14.8	.148/14.5	.153/14.2	.158/13.9	.163/13.6	.168/13.3	.173/13.0	.178/12.7	.183/12.4	.188/12.1	.193/11.8
19	19	.091/19.0	.096/18.7	.101/18.4	.106/18.1	.111/17.8	.116/17.5	.121/17.2	.126/16.9	.131/16.6	.136/16.3	.141/16.0	.146/15.7	.151/15.4	.156/15.1	.161/14.8	.166/14.5	.171/14.2	.176/13.9	.181/13.6	.186/13.3
21	21	.085/20.9	.090/20.6	.095/20.3	.100/20.0	.105/19.7	.110/19.4	.115/19.1	.120/18.8	.125/18.5	.130/18.2	.135/17.9	.140/17.6	.145/17.3	.150/17.0	.155/16.7	.160/16.4	.165/16.1	.170/15.8	.175/15.5	.180/15.2
15	7	.057/14.3	.062/14.0	.067/13.7	.072/13.4	.077/13.1	.082/12.8	.087/12.5	.092/12.2	.097/11.9	.102/11.6	.107/11.3	.112/11.0	.117/10.7	.122/10.4	.127/10.1	.132/9.8	.137/9.5	.142/9.2	.147/8.9	.152/8.6
9	9	.076/17.5	.081/17.2	.086/16.9	.091/16.6	.096/16.3	.101/16.0	.106/15.7	.111/15.4	.116/15.1	.121/14.8	.126/14.5	.131/14.2	.136/13.9	.141/13.6	.146/13.3	.151/13.0	.156/12.7	.161/12.4	.166/12.1	.171/11.8
11	11	.084/19.6	.089/19.3	.094/19.0	.099/18.7	.104/18.4	.109/18.1	.114/17.8	.119/17.5	.124/17.2	.129/16.9	.134/16.6	.139/16.3	.144/16.0	.149/15.7	.154/15.4	.159/15.1	.164/14.8	.169/14.5	.174/14.2	.179/13.9
13	13	.085/20.3	.090/20.0	.095/19.7	.100/19.4	.105/19.1	.110/18.8	.115/18.5	.120/18.2	.125/17.9	.130/17.6	.135/17.3	.140/17.0	.145/16.7	.150/16.4	.155/16.1	.160/15.8	.165/15.5	.170/15.2	.175/14.9	.180/14.6
15	15	.082/20.3	.087/20.0	.092/19.7	.097/19.4	.102/19.1	.107/18.8	.112/18.5	.117/18.2	.122/17.9	.127/17.6	.132/17.3	.137/17.0	.142/16.7	.147/16.4	.152/16.1	.157/15.8	.162/15.5	.167/15.2	.172/14.9	.177/14.6
17	17	.078/20.3	.083/19.9	.088/19.6	.093/19.3	.098/19.0	.103/18.7	.108/18.4	.113/18.1	.118/17.8	.123/17.5	.128/17.2	.133/16.9	.138/16.6	.143/16.3	.148/16.0	.153/15.7	.158/15.4	.163/15.1	.168/14.8	.173/14.5
19	19	.074/20.3	.079/19.9	.084/19.6	.089/19.3	.094/19.0	.099/18.7	.104/18.4	.109/18.1	.114/17.8	.119/17.5	.124/17.2	.129/16.9	.134/16.6	.139/16.3	.144/16.0	.149/15.7	.154/15.4	.159/15.1	.164/14.8	.169/14.5
21	21	.070/22.4	.075/22.1	.080/21.8	.085/21.5	.090/21.2	.095/20.9	.100/20.6	.105/20.3	.110/20.0	.115/19.7	.120/19.4	.125/19.1	.130/18.8	.135/18.5	.140/18.2	.145/17.9	.150/17.6	.155/17.3	.160/17.0	.165/16.7
20	7	.040/13.4	.045/13.1	.050/12.8	.055/12.5	.060/12.2	.065/11.9	.070/11.6	.075/11.3	.080/11.0	.085/10.7	.090/10.4	.095/10.1	.100/9.8	.105/9.5	.110/9.2	.115/8.9	.120/8.6	.125/8.3	.130/8.0	.135/7.7
9	9	.052/19.0	.057/18.7	.062/18.4	.067/18.1	.072/17.8	.077/17.5	.082/17.2	.087/16.9	.092/16.6	.097/16.3	.102/16.0	.107/15.7	.112/15.4	.117/15.1	.122/14.8	.127/14.5	.132/14.2	.137/13.9	.142/13.6	.147/13.3
11	11	.060/23.3	.065/23.0	.070/22.7	.075/22.4	.080/22.1	.085/21.8	.090/21.5	.095/21.2	.100/20.9	.105/20.6	.110/20.3	.115/20.0	.120/19.7	.125/19.4	.130/19.1	.135/18.8	.140/18.5	.145/18.2	.150/17.9	.155/17.6
13	13	.063/23.3	.068/23.0	.073/22.7	.078/22.4	.083/22.1	.088/21.8	.093/21.5	.098/21.2	.103/20.9	.108/20.6	.113/20.3	.118/20.0	.123/19.7	.128/19.4	.133/19.1	.138/18.8	.143/18.5	.148/18.2	.153/17.9	.158/17.6
15	15	.063/26.2	.068/25.9	.073/25.6	.078/25.3	.083/25.0	.088/24.7	.093/24.4	.098/24.1	.103/23.8	.108/23.5	.113/23.2	.118/22.9	.123/22.6	.128/22.3	.133/22.0	.138/21.7	.143/21.4	.148/21.1	.153/20.8	.158/20.5
17	17	.061/26.2	.066/25.9	.071/25.6	.076/25.3	.081/25.0	.086/24.7	.091/24.4	.096/24.1	.101/23.8	.106/23.5	.111/23.2	.116/22.9	.121/22.6	.126/22.3	.131/22.0	.136/21.7	.141/21.4	.146/21.1	.151/20.8	.156/20.5
19	19	.059/26.2	.064/25.9	.069/25.6	.074/25.3	.079/25.0	.084/24.7	.089/24.4	.094/24.1	.099/23.8	.104/23.5	.109/23.2	.114/22.9	.119/22.6	.124/22.3	.129/22.0	.134/21.7	.139/21.4	.144/21.1	.149/20.8	.154/20.5
21	21	.057/27.3	.062/27.0	.067/26.7	.072/26.4	.077/26.1	.082/25.8	.087/25.5	.092/25.2	.097/24.9	.102/24.6	.107/24.3	.112/24.0	.117/23.7	.122/23.4	.127/23.1	.132/22.8	.137/22.5	.142/22.2	.147/21.9	.152/21.6
25	7	.030/16.5	.035/16.2	.040/15.9	.045/15.6	.050/15.3	.055/15.0	.060/14.7	.065/14.4	.070/14.1	.075/13.8	.080/13.5	.085/13.2	.090/12.9	.095/12.6	.100/12.3	.105/12.0	.110/11.7	.115/11.4	.120/11.1	.125/10.8
9	9	.036/16.5	.041/16.2	.046/15.9	.051/15.6	.056/15.3	.061/15.0	.066/14.7	.071/14.4	.076/14.1	.081/13.8	.086/13.5	.091/13.2	.096/12.9	.101/12.6	.106/12.3	.111/12.0	.116/11.7	.121/11.4	.126/11.1	.131/10.8
11	11	.041/16.5	.046/16.2	.051/15.9	.056/15.6	.061/15.3	.066/15.0	.071/14.7	.076/14.4	.081/14.1	.086/13.8	.091/13.5	.096/13.2	.101/12.9	.106/12.6	.111/12.3	.116/12.0	.121/11.7	.126/11.4	.131/11.1	.136/10.8
13	13	.045/33.1	.050/32.8	.055/32.5	.060/32.2	.065/31.9	.070/31.6	.075/31.3	.080/31.0	.085/30.7	.090/30.4	.095/30.1	.100/29.8	.105/29.5	.110/29.2	.115/28.9	.120/28.6	.125/28.3	.130/28.0	.135/27.7	.140/27.4
15	15	.047/33.1	.052/32.8	.057/32.5	.062/32.2	.067/31.9	.072/31.6	.077/31.3	.082/31.0	.087/30.7	.092/30.4	.097/30.1	.102/29.8	.107/29.5	.112/29.2	.117/28.9	.122/28.6	.127/28.3	.132/28.0	.137/27.7	.142/27.4
17	17	.047/33.1	.052/32.8	.057/32.5	.062/32.2	.067/31.9	.072/31.6	.077/31.3	.082/31.0	.087/30.7	.092/30.4	.097/30.1	.102/29.8	.107/29.5	.112/29.2	.117/28.9	.122/28.6	.127/28.3	.132/28.0	.137/27.7	.142/27.4
19	19	.047/33.1	.052/32.8	.057/32.5	.062/32.2	.067/31.9	.072/31.6	.077/31.3	.082/31.0	.087/30.7	.092/30.4	.097/30.1	.102/29.8	.107/29.5	.112/29.2	.117/28.9	.122/28.6	.127/28.3	.132/28.0	.137/27.7	.142/27.4
21	21	.046/33.1	.051/32.8	.056/32.5	.061/32.2	.066/31.9	.071/31.6	.076/31.3	.081/31.0	.086/30.7	.091/30.4	.096/30.1	.101/29.8	.106/29.5	.111/29.2	.116/28.9	.121/28.6	.126/28.3	.131/28.0	.136/27.7	.141/27.4

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

0

DE 1040														
SHORTCUTTED RMS VEL ACC IN GTS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS OF (ACC. X 100) AFT PERPENDICULAR AT MAIN DECK - 31.4 FT FROM HL														
SHIP HEADING ANGLE IN DEGREES														
V T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7.299/8.1 9.304/10.5 11.295/11.2 13.250/11.6 15.215/12.1 17.185/12.6 19.159/13.4 21.136/13.4	8.1 10.5 11.2 11.6 12.1 12.6 13.4 13.4	6.7 10.5 11.2 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4	5.7 8.3 10.5 11.6 12.1 12.6 13.4 13.4
10	7.172/12.8 9.184/13.7 11.175/14.0 13.154/14.6 15.141/15.0 17.124/15.3 19.104/15.1 21.096/17.0	8.5 13.7 14.0 14.6 15.0 15.3 15.1 17.0	6.3 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0	5.7 12.8 14.0 14.6 15.0 15.3 15.1 17.0
15	7.104/14.3 9.111/17.5 11.084/17.5 13.010/20.3 15.042/20.3 17.083/20.3 19.074/20.3 21.067/20.3	14.3 17.5 17.5 20.3 20.3 20.3 20.3 20.3	6.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3	5.7 17.5 17.5 20.3 20.3 20.3 20.3 20.3
20	7.068/13.4 9.069/13.4 11.067/13.0 13.066/23.3 15.060/23.3 17.055/26.2 19.051/26.2 21.047/26.2	13.4 13.4 13.0 23.3 23.3 26.2 26.2 26.2	6.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2	5.7 13.4 13.0 23.3 23.3 26.2 26.2 26.2
25	7.064/8.7 9.053/16.5 11.047/16.5 13.044/16.5 15.041/16.5 17.038/33.1 19.036/33.1 21.034/33.1	8.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	6.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1	5.7 16.5 16.5 16.5 16.5 33.1 33.1 33.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

HELICOPTER DECK BULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.099/ 8.7	.107/ 8.7	.125/ 8.5	.146/ 8.3	.163/ 8.3	.173/ 8.3	.175/ 8.3	.168/ 7.7	.153/ 7.3	.132/ 7.1	.110/ 6.8	.091/ 6.8	.084/ 6.8
9	9	.127/11.2	.133/11.2	.150/ 8.5	.169/ 8.3	.184/ 8.3	.194/ 8.3	.197/ 8.3	.187/ 8.3	.172/ 8.3	.152/ 8.1	.131/ 8.1	.114/ 8.1	.104/ 8.1
11	11	.141/12.6	.147/12.6	.161/12.1	.174/12.1	.191/12.1	.194/12.1	.197/11.6	.189/ 8.5	.173/ 8.3	.154/ 8.3	.134/ 8.3	.118/ 8.3	.112/ 8.3
13	13	.148/14.0	.153/14.0	.167/14.0	.183/14.0	.195/13.7	.202/13.7	.203/13.4	.190/13.4	.174/13.1	.154/12.8	.134/12.8	.118/12.6	.112/12.6
15	15	.149/15.3	.155/15.3	.169/15.3	.185/15.3	.194/15.3	.205/15.3	.203/15.3	.193/15.0	.177/15.0	.157/14.6	.136/14.6	.119/14.3	.113/14.3
17	17	.147/17.0	.153/17.0	.168/17.0	.183/17.0	.194/17.0	.206/17.0	.205/17.0	.195/17.0	.179/17.0	.158/17.0	.137/16.5	.120/16.5	.113/16.5
19	19	.145/19.0	.151/19.0	.166/19.0	.184/19.0	.194/18.5	.207/18.5	.206/18.5	.197/18.5	.181/18.0	.160/18.0	.138/17.5	.120/17.5	.113/17.0
21	21	.142/21.7	.149/21.7	.165/20.9	.183/20.9	.199/20.9	.208/20.9	.208/20.9	.199/20.3	.183/20.3	.162/20.3	.139/20.3	.121/19.6	.114/19.6
10	7	.161/13.1	.167/13.1	.184/12.1	.199/ 8.7	.172/ 8.5	.178/ 8.5	.175/ 8.5	.163/ 8.3	.144/ 7.3	.121/ 7.1	.097/ 7.1	.078/ 7.0	.071/ 7.0
9	9	.161/13.1	.167/13.1	.184/12.1	.199/ 8.7	.172/ 8.5	.178/ 8.5	.175/ 8.5	.163/ 8.3	.144/ 7.3	.121/ 7.1	.097/ 7.1	.078/ 7.0	.071/ 7.0
11	11	.180/14.0	.184/14.0	.195/13.7	.207/13.7	.215/13.4	.215/13.4	.209/12.6	.190/12.6	.168/12.1	.145/ 9.0	.123/ 9.0	.107/ 9.0	.101/ 9.0
13	13	.183/15.0	.187/15.0	.198/15.0	.210/14.6	.218/14.3	.218/14.3	.209/14.0	.192/13.7	.170/13.4	.145/13.4	.124/13.1	.107/12.8	.101/12.8
15	15	.174/16.5	.184/16.5	.196/16.1	.209/16.1	.218/15.7	.218/15.7	.211/15.7	.194/15.3	.172/15.3	.148/15.0	.125/14.6	.108/14.6	.101/14.6
17	17	.173/18.0	.178/18.0	.191/18.0	.205/18.0	.215/17.5	.215/17.5	.211/17.5	.194/17.5	.174/17.0	.150/17.0	.126/17.0	.108/16.5	.101/16.5
19	19	.166/19.6	.172/19.6	.186/19.6	.201/19.6	.212/19.6	.212/19.6	.211/19.6	.196/19.0	.176/19.0	.152/18.5	.128/18.0	.109/17.5	.102/17.5
21	21	.161/22.4	.167/22.4	.182/21.7	.198/21.7	.211/20.9	.216/20.9	.211/20.9	.198/20.9	.178/20.3	.158/20.3	.130/20.3	.111/19.6	.103/19.6
15	7	.196/17.5	.200/14.3	.207/14.3	.214/14.3	.216/14.3	.210/14.3	.194/14.3	.170/14.3	.141/ 7.7	.112/ 7.5	.086/ 7.3	.067/ 7.0	.060/ 7.0
9	9	.234/17.5	.237/17.5	.243/17.5	.250/17.5	.250/17.5	.241/14.3	.221/14.3	.194/14.3	.162/ 8.5	.132/ 8.5	.107/ 8.5	.090/ 8.3	.083/ 8.3
11	11	.241/17.5	.244/17.5	.250/17.5	.257/17.5	.257/17.5	.248/14.3	.228/14.3	.199/14.3	.168/14.3	.138/11.2	.114/ 9.2	.097/ 9.2	.091/ 9.2
13	13	.232/17.5	.235/17.5	.243/17.5	.251/17.5	.252/17.5	.245/17.5	.226/14.3	.200/14.3	.169/14.3	.140/13.7	.115/13.1	.098/10.1	.091/10.1
15	15	.219/17.5	.223/17.5	.232/17.5	.241/17.5	.245/17.5	.241/17.5	.224/17.5	.200/15.7	.171/15.3	.142/15.3	.117/15.0	.098/14.6	.092/14.6
17	17	.206/17.5	.210/17.5	.220/17.5	.232/17.5	.242/17.5	.242/17.5	.221/17.5	.195/17.5	.172/17.5	.144/17.0	.118/17.0	.098/17.0	.092/16.5
19	19	.194/19.6	.199/19.6	.211/19.6	.223/19.6	.231/19.6	.230/19.6	.219/19.6	.196/19.6	.173/19.6	.145/19.0	.119/19.0	.100/19.0	.092/19.6
21	21	.185/23.3	.191/23.3	.203/23.3	.217/22.4	.227/22.4	.227/22.4	.218/20.9	.200/20.9	.175/20.9	.148/20.3	.122/20.3	.102/20.3	.094/19.6
20	7	.317/19.0	.318/13.4	.318/13.4	.315/13.4	.304/13.4	.280/13.4	.244/13.4	.198/13.4	.151/13.4	.110/13.4	.079/ 7.9	.059/ 7.0	.052/ 6.8
9	9	.346/19.0	.346/19.0	.346/19.0	.343/19.0	.331/19.0	.306/19.0	.267/19.0	.219/13.4	.170/13.4	.129/13.4	.099/ 8.5	.080/ 8.5	.074/ 8.5
11	11	.329/19.0	.330/19.0	.331/19.0	.330/19.0	.321/19.0	.299/19.0	.264/19.0	.219/19.0	.174/13.4	.135/13.4	.106/10.1	.088/ 9.8	.082/ 9.8
13	13	.301/23.3	.303/23.3	.305/23.3	.304/19.0	.302/19.0	.284/19.0	.254/19.0	.215/19.0	.173/13.4	.136/13.4	.108/13.1	.090/11.2	.083/10.8
15	15	.275/23.3	.277/23.3	.283/23.3	.287/23.3	.285/19.0	.271/19.0	.245/19.0	.211/19.0	.173/19.0	.139/15.7	.110/15.7	.091/15.0	.083/14.6
17	17	.252/23.3	.255/23.3	.262/23.3	.269/23.3	.269/19.0	.259/19.0	.238/19.0	.207/19.0	.173/19.0	.139/17.5	.111/17.0	.091/17.0	.084/17.0
19	19	.234/23.3	.237/23.3	.246/23.3	.255/23.3	.254/23.3	.245/23.3	.229/23.3	.205/23.3	.173/19.6	.141/19.6	.113/19.6	.092/19.6	.084/19.6
21	21	.220/23.3	.224/23.3	.234/23.3	.245/23.3	.249/23.3	.245/23.3	.229/23.3	.204/23.3	.174/20.9	.143/20.3	.115/20.3	.094/20.3	.086/20.3
25	7	.480/16.5	.483/16.5	.491/16.5	.496/16.5	.484/16.5	.459/16.5	.411/16.5	.359/16.5	.317/16.5	.277/16.5	.237/ 8.7	.202/ 7.0	.195/ 7.0
9	9	.428/16.5	.430/16.5	.430/16.5	.427/16.5	.412/16.5	.393/16.5	.355/16.5	.325/16.5	.288/16.5	.258/16.5	.228/16.5	.197/ 8.7	.191/ 8.7
11	11	.407/24.2	.407/24.2	.408/24.2	.405/16.5	.391/16.5	.368/16.5	.331/16.5	.290/16.5	.258/16.5	.228/16.5	.197/16.5	.168/16.5	.162/16.5
13	13	.371/24.2	.372/24.2	.373/24.2	.373/24.2	.361/16.5	.344/16.5	.317/16.5	.284/16.5	.250/16.5	.218/16.5	.187/16.5	.158/16.5	.152/16.5
15	15	.338/24.2	.340/24.2	.343/24.2	.343/24.2	.335/24.2	.318/24.2	.290/24.2	.256/24.2	.222/24.2	.189/24.2	.158/24.2	.128/24.2	.122/24.2
17	17	.307/29.9	.311/29.9	.315/29.9	.318/29.9	.313/24.2	.295/24.2	.267/24.2	.233/24.2	.200/24.2	.167/24.2	.134/24.2	.104/24.2	.100/24.2
19	19	.285/29.9	.288/29.9	.294/29.9	.298/29.9	.293/24.2	.275/24.2	.247/24.2	.214/24.2	.181/24.2	.148/24.2	.115/24.2	.085/24.2	.081/24.2
21	21	.266/29.9	.269/29.9	.276/29.9	.283/29.9	.282/24.2	.271/24.2	.247/24.2	.214/24.2	.181/24.2	.148/24.2	.115/24.2	.085/24.2	.081/24.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCUTTED
HMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T IN SECONDS
OR
HELICOPTER DECK HULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.075/8.7	.084/8.5	.103/8.3	.125/8.3	.145/7.9	.158/7.9	.164/7.3	.161/7.0	.150/6.7	.132/6.5	.110/6.5	.091/6.5	.083/6.5	
	9	.083/8.7	.090/8.7	.106/8.7	.125/8.5	.142/8.3	.154/8.3	.159/8.3	.157/8.1	.147/7.9	.132/7.7	.115/7.7	.100/7.7	.093/7.7	
	11	.082/11.6	.087/11.6	.099/11.6	.114/8.7	.127/8.5	.137/8.5	.140/8.3	.138/8.3	.130/8.3	.118/8.1	.103/8.1	.091/8.1	.086/8.1	
	13	.077/12.8	.081/12.8	.091/12.8	.103/12.6	.114/12.6	.124/12.6	.124/12.6	.121/8.3	.114/8.3	.103/8.3	.091/8.3	.081/8.3	.077/8.3	
	15	.071/14.0	.074/14.0	.083/14.0	.093/14.0	.103/14.0	.109/14.0	.111/13.7	.104/13.7	.101/13.4	.091/13.1	.080/12.4	.072/8.3	.064/8.3	
	17	.064/15.3	.067/15.3	.075/15.3	.085/15.3	.093/15.3	.094/15.3	.100/15.3	.097/15.0	.091/15.0	.082/14.6	.072/14.6	.064/14.3	.061/14.3	
	19	.058/17.0	.061/17.0	.068/17.0	.077/17.0	.084/17.0	.084/17.0	.091/17.0	.088/16.5	.082/16.5	.074/16.5	.065/16.5	.058/15.3	.055/15.0	
10	7	.053/14.5	.056/14.5	.063/14.5	.070/14.5	.077/14.5	.082/14.0	.083/14.0	.081/14.0	.075/14.0	.069/13.5	.059/13.5	.053/13.0	.050/13.0	
	9	.057/13.1	.063/13.1	.070/13.1	.075/13.1	.081/13.1	.085/13.1	.086/13.1	.084/13.1	.078/13.1	.072/13.1	.064/13.1	.057/13.1	.054/13.1	
	11	.068/13.7	.072/13.4	.083/13.4	.091/13.4	.096/13.4	.100/13.4	.101/13.4	.100/13.4	.094/13.4	.088/13.4	.080/13.4	.073/13.4	.070/13.4	
	13	.076/15.0	.079/15.0	.087/15.0	.096/14.6	.105/14.6	.110/14.3	.111/14.3	.107/14.0	.100/13.4	.090/13.4	.079/13.1	.070/9.0	.067/9.0	
	15	.068/16.1	.071/16.1	.079/15.7	.087/15.7	.095/15.7	.094/15.7	.100/15.3	.096/15.3	.090/15.3	.080/15.0	.070/14.6	.062/14.6	.059/14.6	
	17	.062/17.5	.064/17.5	.071/17.5	.079/17.5	.086/17.5	.090/17.5	.091/17.0	.088/17.0	.081/17.0	.073/17.0	.064/16.5	.056/16.5	.053/16.5	
	21	.056/18.5	.059/18.5	.065/18.5	.072/18.5	.079/18.5	.083/18.5	.083/18.0	.080/18.0	.074/18.0	.066/18.0	.058/17.5	.051/17.0	.048/17.0	
15	7	.078/14.3	.086/14.3	.103/14.3	.123/14.3	.140/14.3	.150/14.3	.154/7.5	.149/7.3	.137/7.1	.119/7.0	.098/6.7	.080/6.4	.073/6.4	
	9	.095/17.5	.101/17.5	.114/14.3	.129/14.3	.143/14.3	.151/14.3	.153/14.3	.148/8.1	.137/7.9	.122/7.9	.105/7.9	.091/7.7	.086/7.7	
	11	.095/17.5	.099/17.5	.100/17.5	.106/17.5	.112/14.3	.119/14.3	.124/14.3	.120/14.3	.111/12.6	.099/9.2	.087/9.2	.077/9.2	.074/9.2	
	13	.088/17.5	.092/17.5	.091/17.5	.097/17.5	.107/17.5	.112/14.3	.111/14.3	.107/14.3	.099/14.3	.084/13.7	.077/9.5	.064/9.5	.065/9.5	
	15	.080/17.5	.083/17.5	.082/17.5	.087/17.5	.097/17.5	.101/17.5	.100/17.5	.096/15.3	.089/15.3	.079/15.3	.069/15.0	.061/14.6	.054/14.6	
	17	.071/17.5	.074/17.5	.082/17.5	.087/17.5	.098/17.5	.101/17.5	.091/17.5	.087/17.5	.080/17.0	.071/17.0	.062/17.0	.054/16.5	.052/16.5	
	21	.064/17.5	.067/17.5	.074/17.5	.081/17.5	.088/17.5	.091/17.5	.083/17.5	.080/18.0	.073/18.0	.065/18.0	.056/18.0	.049/17.5	.047/17.0	
20	7	.082/13.4	.090/13.4	.107/13.4	.126/13.4	.142/13.4	.151/13.4	.152/13.4	.146/13.4	.133/13.4	.114/7.7	.093/6.4	.076/6.4	.069/6.4	
	9	.077/19.0	.084/19.0	.101/19.0	.120/19.0	.136/19.0	.145/19.0	.146/13.4	.146/13.4	.134/13.4	.114/8.1	.091/7.9	.087/7.9	.082/7.9	
	11	.066/19.0	.072/19.0	.089/19.0	.107/19.0	.124/19.0	.140/19.0	.139/13.4	.134/13.4	.123/13.4	.104/8.7	.085/8.7	.084/8.7	.080/8.7	
	13	.089/19.0	.092/19.0	.102/19.0	.112/19.0	.121/19.0	.129/19.0	.125/13.4	.119/13.4	.109/13.4	.097/13.4	.085/9.5	.075/9.5	.072/9.5	
	15	.080/23.3	.083/23.3	.092/19.0	.101/19.0	.109/19.0	.113/19.0	.106/13.4	.106/13.4	.098/13.4	.086/13.4	.075/10.5	.067/10.1	.053/10.1	
	17	.072/23.3	.075/23.3	.083/19.0	.091/19.0	.098/19.0	.101/19.0	.094/19.0	.094/19.0	.088/15.7	.077/15.3	.067/15.0	.059/14.6	.054/14.6	
	21	.065/23.3	.069/23.3	.075/23.3	.083/23.3	.089/19.0	.092/19.0	.081/19.0	.081/19.0	.079/19.0	.070/19.0	.060/17.0	.053/16.5	.050/16.5	
25	7	.071/16.5	.079/16.5	.094/16.5	.110/16.5	.133/16.5	.143/16.5	.145/16.5	.139/16.5	.126/8.7	.104/8.7	.084/6.5	.071/6.7	.064/6.7	
	9	.065/16.5	.071/16.5	.085/16.5	.104/16.5	.124/16.5	.137/16.5	.147/16.5	.141/16.5	.129/16.5	.113/8.7	.096/8.7	.082/7.7	.077/7.7	
	11	.066/16.5	.071/16.5	.085/16.5	.104/16.5	.124/16.5	.137/16.5	.147/16.5	.141/16.5	.129/16.5	.113/8.7	.096/8.7	.082/7.7	.077/7.7	
	13	.082/16.5	.081/16.5	.097/16.5	.110/16.5	.124/16.5	.137/16.5	.147/16.5	.141/16.5	.129/16.5	.113/8.7	.096/8.7	.082/7.7	.077/7.7	
	15	.077/24.2	.081/24.2	.090/16.5	.100/16.5	.108/16.5	.116/16.5	.111/16.5	.105/16.5	.096/16.5	.085/16.5	.073/11.2	.065/11.2	.064/10.1	
	17	.072/24.2	.074/24.2	.082/24.2	.091/16.5	.098/16.5	.101/16.5	.100/16.5	.095/16.5	.086/16.5	.076/16.5	.065/15.3	.057/11.6	.054/11.2	
	21	.065/24.2	.068/24.2	.075/24.2	.083/24.2	.089/16.5	.092/24.2	.084/16.5	.084/16.5	.078/16.5	.069/16.5	.059/17.0	.051/17.0	.049/16.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040														
SHOUTCASTED														
RMS LAT ACC IN 0.5/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OF														
(ACC. X 100)														
HELICOPTER DECK HULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL														
V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.187/ 8.5	.216/ 8.3	.286/ 7.9	.367/ 7.5	.441/ 7.1	.496/ 6.8	.526/ 6.3	.526/ 6.3	.497/ 6.3	.443/ 6.3	.372/ 6.3	.304/ 6.3	.273/ 6.3
	9	.184/ 8.7	.206/ 8.7	.258/ 8.3	.320/ 8.3	.379/ 8.3	.424/ 7.9	.469/ 7.9	.522/ 7.5	.432/ 7.1	.391/ 7.0	.339/ 7.0	.291/ 7.0	.271/ 7.1
	11	.162/ 8.7	.178/ 8.7	.216/ 8.5	.262/ 8.3	.307/ 8.3	.361/ 8.3	.381/ 8.1	.363/ 7.9	.348/ 7.9	.316/ 7.9	.279/ 7.9	.245/ 7.9	.230/ 7.7
	13	.139/12.1	.151/11.6	.179/ 8.7	.215/ 8.3	.248/ 8.3	.275/ 8.3	.290/ 8.3	.291/ 8.1	.279/ 8.1	.256/ 7.9	.226/ 7.9	.200/ 7.9	.189/ 7.9
	15	.118/12.6	.127/12.6	.150/12.6	.176/ 8.5	.204/ 8.3	.225/ 8.3	.236/ 8.3	.237/ 8.3	.227/ 8.1	.208/ 8.1	.185/ 8.1	.164/ 8.1	.155/ 8.1
	17	.101/13.1	.108/13.1	.126/13.1	.149/13.1	.170/ 8.3	.187/ 8.3	.196/ 8.3	.196/ 8.3	.188/ 8.1	.172/ 8.1	.153/ 8.1	.136/ 8.1	.129/ 8.1
10	7	.152/ 8.5	.184/ 8.5	.256/ 8.5	.341/ 7.0	.420/ 7.0	.480/ 6.7	.516/ 6.7	.523/ 6.3	.499/ 6.3	.450/ 6.3	.382/ 6.3	.316/ 6.3	.286/ 6.3
	9	.158/12.1	.179/12.1	.232/ 8.5	.296/ 8.5	.358/ 8.3	.409/ 8.3	.442/ 7.1	.451/ 7.1	.437/ 7.1	.402/ 7.1	.354/ 7.1	.308/ 7.1	.288/ 7.1
	11	.145/13.1	.160/13.1	.197/12.9	.245/ 8.5	.292/ 8.5	.331/ 8.3	.357/ 8.3	.365/ 8.1	.356/ 7.7	.330/ 7.7	.295/ 7.5	.262/ 7.5	.239/ 7.7
	13	.127/13.7	.138/13.4	.166/13.4	.202/13.1	.238/12.6	.268/ 8.5	.288/ 8.3	.294/ 8.3	.286/ 8.3	.266/ 8.1	.239/ 7.9	.215/ 8.1	.205/ 8.1
	15	.104/14.5	.116/14.0	.140/13.7	.168/13.4	.197/13.4	.220/13.1	.235/ 8.5	.240/ 8.3	.233/ 8.3	.217/ 8.3	.195/ 8.3	.176/ 8.3	.168/ 8.3
	17	.084/14.3	.101/14.3	.119/14.3	.142/14.0	.165/14.0	.183/13.7	.195/13.4	.199/ 8.5	.193/ 8.3	.179/ 8.3	.161/ 8.3	.146/ 8.5	.139/ 8.5
15	7	.132/14.3	.162/14.3	.233/14.3	.314/ 7.3	.398/ 7.3	.463/ 7.1	.503/ 7.0	.514/ 6.8	.496/ 6.4	.451/ 6.3	.387/ 6.3	.323/ 6.3	.293/ 6.3
	9	.140/14.3	.161/14.3	.212/14.3	.276/14.3	.341/ 7.7	.396/ 7.7	.433/ 7.5	.447/ 7.3	.438/ 7.1	.407/ 7.1	.362/ 7.0	.318/ 7.0	.300/ 7.0
	11	.130/17.5	.145/14.3	.182/14.3	.230/14.3	.280/14.3	.323/ 7.9	.353/ 7.9	.365/ 7.9	.360/ 7.7	.337/ 7.7	.305/ 7.7	.274/ 7.7	.261/ 7.7
	13	.114/17.5	.125/17.5	.154/14.3	.191/14.3	.229/14.3	.262/14.3	.285/ 8.1	.295/ 8.1	.291/ 8.1	.274/ 8.1	.249/ 8.1	.226/ 8.1	.214/ 8.1
	15	.099/17.5	.107/17.5	.130/17.5	.159/14.3	.190/14.3	.216/14.3	.234/14.3	.241/ 8.3	.237/ 8.3	.223/ 8.3	.203/ 8.3	.185/ 8.3	.178/ 8.3
	17	.085/17.5	.092/17.5	.110/17.5	.134/17.5	.159/14.3	.180/14.3	.194/14.3	.200/14.3	.196/ 8.3	.185/ 8.3	.168/ 8.5	.153/ 8.5	.147/ 8.5
20	7	.112/13.4	.142/13.4	.214/13.4	.300/13.4	.383/13.4	.450/13.4	.494/13.4	.510/ 5.7	.496/ 5.7	.454/ 6.3	.392/ 6.3	.329/ 6.3	.300/ 6.3
	9	.117/13.4	.138/13.4	.191/13.4	.258/13.4	.327/13.4	.387/13.4	.428/13.4	.447/ 7.9	.442/ 7.7	.414/ 7.3	.371/ 6.8	.329/ 6.8	.310/ 6.8
	11	.108/19.0	.124/19.0	.163/13.4	.215/13.4	.268/13.4	.316/13.4	.350/13.4	.368/ 8.1	.366/ 8.1	.346/ 7.9	.315/ 7.9	.285/ 7.7	.273/ 7.7
	13	.096/19.0	.109/19.0	.138/19.0	.178/13.4	.220/13.4	.257/13.4	.284/13.4	.298/ 8.3	.297/ 8.3	.282/ 8.3	.258/ 8.3	.236/ 8.3	.227/ 8.3
	15	.084/19.0	.093/19.0	.117/19.0	.149/19.0	.182/13.4	.212/13.4	.233/13.4	.244/13.4	.242/ 8.5	.230/ 8.5	.211/ 8.5	.194/ 8.7	.186/ 8.7
	17	.073/19.0	.081/19.0	.100/19.0	.126/19.0	.153/14.0	.177/13.4	.194/13.4	.202/13.4	.200/ 8.7	.190/ 8.7	.175/ 8.7	.160/ 8.7	.154/ 8.7
25	7	.086/16.5	.116/16.5	.197/ 8.7	.274/ 8.7	.360/ 8.7	.430/ 8.7	.478/ 8.7	.498/ 5.7	.488/ 5.7	.450/ 6.3	.391/ 6.3	.330/ 6.3	.301/ 6.3
	9	.089/16.5	.111/16.5	.165/16.5	.235/16.5	.308/16.5	.371/16.5	.417/16.5	.441/ 8.7	.439/ 8.7	.415/ 6.8	.374/ 6.8	.333/ 6.8	.314/ 7.0
	11	.084/16.5	.101/16.5	.142/16.5	.196/16.5	.254/16.5	.305/16.5	.344/16.5	.365/ 8.7	.366/ 8.7	.349/ 7.5	.320/ 7.5	.291/ 7.5	.278/ 7.5
	13	.077/16.5	.089/16.5	.122/16.5	.164/16.5	.209/16.5	.249/16.5	.280/16.5	.297/16.5	.298/ 8.7	.285/ 8.7	.263/ 8.7	.242/ 8.3	.232/ 8.3
	15	.069/16.5	.079/16.5	.105/16.5	.138/16.5	.174/16.5	.206/16.5	.230/16.5	.243/16.5	.244/ 8.7	.234/ 8.7	.216/ 8.7	.199/ 9.0	.192/ 9.0
	17	.062/16.5	.070/16.5	.090/16.5	.116/16.5	.146/16.5	.172/16.5	.192/16.5	.202/16.5	.202/16.5	.193/ 9.0	.179/ 9.0	.165/ 9.0	.159/ 9.0
	19	.055/16.5	.062/16.5	.079/16.5	.101/16.5	.125/16.5	.146/16.5	.162/16.5	.170/16.5	.170/16.5	.162/ 9.0	.150/ 9.0	.138/ 9.2	.133/ 9.2
	21	.044/24.2	.055/16.5	.069/16.5	.088/16.5	.108/16.5	.123/16.5	.138/16.5	.145/16.5	.144/16.5	.137/ 9.0	.127/ 9.2	.117/ 9.2	.113/ 9.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040													
SHUNTCRESTED													
RMS VEH UISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS													
OE													
HELIOTOP DECK HULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL													
V	T	SHIP HEADING ANGLE IN DEGREES											
		0	15	30	45	60	75	90	105	120	135	150	165
5	7	134/9.8	140/9.8	156/9.8	175/9.8	192/7.9	203/7.5	208/7.1	206/7.0	196/6.6	183/6.8	168/6.4	157/6.8
	9	199/11.2	202/11.2	210/11.2	220/10.8	229/10.5	237/10.1	241/9.2	242/8.7	239/8.3	235/8.3	230/8.1	226/8.1
	11	237/12.6	238/12.6	241/12.6	245/12.6	248/12.1	252/11.8	254/11.2	256/10.8	251/10.1	248/10.1	245/9.8	241/9.8
	13	254/14.3	254/14.3	255/14.3	259/14.0	261/13.7	263/13.4	265/12.8	261/12.0	263/12.1	265/11.6	261/11.6	258/11.2
	15	261/15.7	261/15.7	260/15.7	264/15.7	265/15.3	267/15.0	269/14.5	265/14.0	267/14.3	269/13.7	265/13.7	262/13.1
	17	262/17.5	261/17.5	260/17.5	264/17.5	265/17.5	267/17.0	269/16.5	265/16.0	267/16.3	269/15.7	265/15.7	262/15.0
	19	261/19.6	261/19.6	260/19.6	264/19.6	265/19.6	267/19.0	269/18.5	265/18.0	267/18.3	269/17.7	265/17.7	262/17.0
	21	261/22.4	260/22.4	260/22.4	264/22.4	265/22.4	267/21.7	269/21.2	265/20.7	267/20.3	269/19.6	265/19.6	262/19.0
10	7	114/13.4	121/13.4	136/13.4	154/13.4	171/8.5	182/8.3	188/7.1	186/7.0	178/7.0	165/7.0	151/7.0	140/7.0
	9	177/14.0	180/14.0	188/14.0	198/13.7	209/13.4	217/10.8	222/9.5	223/9.0	221/8.5	217/8.3	212/8.3	208/8.3
	11	215/15.0	217/15.0	220/14.6	225/14.6	230/14.3	234/13.4	238/12.1	240/11.2	241/10.5	237/10.1	232/9.8	228/9.8
	13	234/16.1	235/16.1	236/16.1	240/16.1	241/15.3	242/14.8	244/13.7	246/13.1	243/12.6	241/12.1	237/11.6	234/11.6
	15	243/18.0	243/18.0	244/18.0	247/17.5	248/16.5	249/16.1	251/15.3	249/15.0	251/14.3	254/14.3	250/14.0	247/14.0
	17	247/19.6	246/19.6	246/19.6	249/19.6	250/19.6	251/19.0	253/18.5	250/18.0	252/17.5	255/17.0	251/17.0	248/17.0
	19	248/21.7	247/21.7	247/21.7	250/21.7	251/21.7	252/21.2	254/20.7	251/20.3	253/19.6	257/19.6	253/19.6	250/19.6
	21	249/24.2	248/24.2	248/24.2	251/24.2	252/24.2	254/23.7	256/23.2	253/22.7	255/22.3	259/22.3	255/22.3	252/22.3
15	7	101/17.5	107/17.5	122/17.5	140/17.5	156/14.3	169/14.3	175/7.3	175/7.0	167/7.0	155/6.8	141/6.8	130/6.8
	9	159/17.5	162/17.5	171/17.5	182/17.5	193/17.5	203/14.3	209/10.5	211/8.7	210/8.5	205/8.5	199/8.3	193/8.3
	11	196/20.3	198/20.3	202/20.3	208/20.3	214/17.5	220/17.5	225/11.6	228/11.2	229/10.5	224/10.1	219/10.1	214/10.1
	13	216/20.3	217/20.3	219/20.3	222/20.3	228/20.3	234/17.5	238/14.3	235/14.3	237/12.6	234/12.6	230/12.1	227/11.6
	15	227/20.3	227/20.3	228/20.3	230/20.3	231/20.3	234/17.5	236/17.5	239/15.3	241/14.8	243/14.3	240/14.3	237/14.3
	17	232/20.3	232/20.3	233/20.3	233/20.3	234/20.3	235/19.6	237/17.5	239/17.5	242/16.5	244/16.5	241/16.5	238/16.5
	19	236/23.3	236/23.3	236/23.3	236/23.3	236/23.3	237/20.9	238/20.3	240/19.0	242/19.0	244/18.5	241/18.5	238/18.5
	21	239/25.1	238/25.1	238/25.1	238/25.1	238/25.1	239/24.2	240/21.7	241/20.3	243/20.3	245/19.6	242/19.6	239/19.6
20	7	99/13.4	108/13.4	112/13.4	130/13.4	147/13.4	160/13.4	168/13.4	169/13.4	164/7.0	153/7.0	140/7.0	129/7.0
	9	146/23.3	149/19.0	157/19.0	169/19.0	182/19.0	193/19.0	202/13.4	206/8.7	207/8.5	204/8.3	199/8.1	194/7.9
	11	180/23.3	182/23.3	186/23.3	193/23.3	201/19.0	210/19.0	217/19.0	222/13.4	225/10.5	225/10.1	223/10.1	220/10.1
	13	200/26.2	201/26.2	203/26.2	208/26.2	213/23.3	218/23.3	223/19.0	228/13.4	231/13.4	233/12.6	230/12.1	227/11.6
	15	212/26.2	213/26.2	214/26.2	217/26.2	220/23.3	224/23.3	229/19.0	234/15.3	236/14.6	237/14.3	234/14.3	231/14.3
	17	219/26.2	219/26.2	220/26.2	221/26.2	223/26.2	224/26.2	226/23.3	229/19.0	235/19.0	237/16.5	234/16.5	231/16.5
	19	224/27.3	224/27.3	224/27.3	224/27.3	226/26.2	226/26.2	228/23.3	230/23.3	235/19.0	237/18.0	234/17.5	231/17.5
	21	228/27.3	228/27.3	228/27.3	228/27.3	229/25.2	231/26.2	230/23.3	234/20.9	236/20.3	238/19.6	235/19.6	232/19.6
25	7	85/16.5	90/16.5	104/16.5	122/16.5	140/16.5	154/16.5	164/16.5	166/16.5	162/7.0	152/7.0	140/7.1	128/7.1
	9	132/16.5	135/16.5	144/16.5	157/16.5	172/16.5	186/16.5	198/16.5	206/16.5	209/7.9	209/7.9	205/7.9	202/7.9
	11	164/34.9	165/34.9	171/34.9	179/34.9	190/34.9	201/34.9	212/34.9	220/34.9	226/34.9	231/34.9	230/34.9	227/34.9
	13	183/33.1	185/33.1	188/33.1	193/33.1	201/33.1	208/33.1	217/33.1	225/33.1	231/33.1	235/33.1	234/33.1	231/33.1
	15	197/33.1	199/33.1	200/33.1	203/33.1	208/33.1	214/33.1	221/33.1	228/33.1	234/33.1	238/33.1	237/33.1	234/33.1
	17	204/33.1	206/33.1	206/33.1	209/33.1	213/33.1	217/33.1	222/33.1	227/33.1	233/33.1	237/33.1	236/33.1	233/33.1
	19	210/33.1	211/33.1	212/33.1	214/33.1	216/33.1	217/33.1	218/33.1	219/33.1	220/33.1	221/33.1	222/33.1	223/33.1
	21	216/33.1	217/33.1	217/33.1	218/33.1	220/33.1	221/33.1	222/33.1	223/33.1	224/33.1	225/33.1	226/33.1	227/33.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1040

SHORTCRESTED
RMS VEH VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
HELICOPTER DECK BILLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.098/9.8	.107/9.5	.129/8.3	.153/7.9	.176/7.0	.193/6.7	.202/6.5	.203/6.4	.196/6.4	.183/6.4	.168/6.5	.156/6.5	.151/6.5	
	9	.122/10.8	.127/10.8	.140/10.5	.156/10.5	.173/9.5	.187/8.5	.197/7.9	.202/7.7	.203/7.5	.200/7.5	.195/7.5	.191/7.5	.189/7.5	
	11	.129/12.1	.132/11.6	.139/11.6	.149/11.6	.160/11.2	.171/10.5	.179/9.8	.186/9.0	.189/8.7	.191/8.5	.191/8.5	.190/8.5	.190/8.5	
	13	.125/13.1	.127/13.1	.131/13.1	.138/12.8	.145/12.6	.153/12.1	.163/11.2	.166/10.8	.171/10.5	.174/10.1	.176/10.1	.177/9.8	.177/9.8	
	15	.118/14.3	.119/14.3	.122/14.3	.126/14.0	.131/13.7	.137/13.4	.143/12.8	.148/12.6	.153/12.1	.156/11.6	.159/11.2	.161/11.2	.161/11.2	
	17	.109/15.7	.110/15.7	.112/15.7	.115/15.7	.119/15.3	.123/15.0	.128/14.6	.133/14.3	.137/14.0	.140/13.1	.143/12.8	.145/12.6	.145/12.6	
	19	.100/17.5	.101/17.5	.102/17.5	.105/17.5	.109/17.0	.112/17.0	.116/16.5	.119/16.5	.123/16.0	.126/15.0	.129/14.6	.130/14.3	.131/14.3	
10	7	.067/13.4	.077/13.4	.099/12.8	.125/6.7	.150/6.7	.170/6.7	.183/6.4	.189/6.4	.186/6.4	.178/6.5	.165/6.5	.155/6.5	.150/6.5	
	9	.089/13.7	.094/13.7	.109/13.7	.128/13.7	.148/7.0	.167/8.5	.183/8.1	.193/7.7	.194/7.7	.200/7.7	.198/7.7	.195/7.7	.194/7.7	
	11	.097/14.6	.101/14.3	.110/14.3	.123/14.0	.139/13.4	.154/10.8	.168/9.5	.180/9.0	.184/8.7	.193/8.7	.196/8.7	.198/8.7	.198/8.7	
	13	.097/15.3	.100/15.3	.106/15.3	.116/14.6	.127/14.6	.140/13.4	.152/12.1	.162/11.2	.171/10.5	.177/10.1	.182/9.8	.184/9.8	.185/9.8	
	15	.096/16.5	.095/16.5	.100/16.5	.107/15.7	.116/15.3	.126/14.6	.136/13.4	.145/12.8	.153/12.6	.160/12.1	.164/11.6	.167/11.2	.168/11.2	
	17	.089/18.0	.093/18.0	.093/17.5	.099/17.0	.106/16.5	.114/15.7	.122/15.0	.130/14.6	.138/14.0	.143/13.4	.148/12.8	.151/12.8	.151/12.8	
	19	.083/19.6	.084/19.6	.087/19.0	.091/18.5	.097/18.0	.104/17.5	.111/17.0	.118/16.5	.124/15.7	.129/15.0	.133/14.6	.136/14.3	.136/14.3	
15	7	.047/14.3	.057/14.3	.080/14.3	.108/7.0	.135/6.7	.159/6.5	.175/6.4	.184/6.4	.185/6.4	.178/6.4	.168/6.5	.157/6.5	.153/6.5	
	9	.064/17.5	.070/17.5	.087/17.5	.109/14.3	.134/8.1	.157/7.9	.177/7.7	.192/7.7	.201/7.5	.204/7.5	.204/7.5	.202/7.5	.201/7.5	
	11	.073/19.6	.077/19.6	.088/17.5	.105/17.5	.125/14.3	.145/10.8	.164/10.1	.179/9.0	.191/8.0	.199/8.7	.203/8.7	.205/8.7	.206/8.7	
	13	.075/20.3	.078/20.3	.086/20.3	.099/20.3	.115/14.3	.131/14.3	.147/11.6	.162/11.2	.173/10.5	.182/10.1	.188/10.1	.191/10.1	.192/10.1	
	15	.076/20.3	.076/20.3	.083/20.3	.093/20.3	.105/17.5	.119/14.3	.132/14.3	.145/12.8	.156/12.6	.164/12.1	.170/11.2	.174/11.2	.175/11.2	
	17	.072/20.3	.073/20.3	.078/20.3	.086/20.3	.096/20.3	.108/17.5	.119/15.3	.130/14.6	.140/14.3	.147/14.0	.153/13.1	.156/12.8	.157/12.8	
	19	.069/20.3	.070/20.3	.074/20.3	.080/20.3	.089/20.3	.098/17.5	.108/17.5	.117/16.5	.126/15.7	.133/15.0	.138/14.6	.141/14.6	.142/14.3	
20	7	.033/13.4	.044/13.4	.068/13.4	.097/13.4	.127/13.4	.154/6.3	.179/6.3	.186/6.4	.190/6.4	.186/6.5	.177/6.7	.168/6.7	.164/6.7	
	9	.045/19.0	.052/19.0	.071/13.4	.097/13.4	.126/13.4	.154/7.9	.179/7.3	.186/7.3	.192/7.3	.200/7.3	.222/7.3	.222/7.3	.221/7.3	
	11	.053/23.3	.058/23.3	.072/23.3	.092/23.3	.116/13.4	.142/9.5	.165/8.2	.186/9.0	.202/8.5	.213/8.3	.220/8.1	.223/7.9	.224/7.9	
	13	.056/23.3	.060/23.3	.071/23.3	.087/23.3	.106/13.4	.127/13.4	.148/13.4	.166/10.8	.182/10.5	.194/10.1	.202/10.1	.206/9.8	.208/9.8	
	15	.058/26.2	.061/26.2	.069/26.2	.081/23.3	.097/19.0	.115/13.4	.132/13.4	.148/13.4	.162/12.6	.173/11.6	.181/11.2	.186/11.2	.187/11.2	
	17	.057/26.2	.060/26.2	.066/26.2	.076/26.2	.089/19.0	.104/19.0	.118/15.0	.132/14.6	.145/14.6	.155/14.0	.162/13.4	.166/12.8	.167/12.8	
	19	.056/26.2	.058/26.2	.063/26.2	.071/26.2	.082/23.3	.094/19.0	.107/19.0	.119/16.5	.130/15.7	.138/15.0	.145/14.6	.147/14.6	.150/14.6	
25	7	.025/16.5	.036/16.5	.061/16.5	.092/8.7	.124/6.3	.153/6.3	.176/6.5	.191/6.5	.197/6.7	.194/6.7	.186/6.8	.177/7.0	.173/7.0	
	9	.031/16.5	.040/16.5	.061/16.5	.090/16.5	.124/16.5	.157/7.1	.187/7.1	.212/7.3	.230/7.3	.241/7.5	.246/7.5	.248/7.5	.248/7.5	
	11	.037/16.5	.043/16.5	.060/16.5	.084/16.5	.113/16.5	.143/16.5	.172/8.7	.198/7.7	.219/7.9	.235/7.9	.245/7.9	.251/7.9	.253/7.9	
	13	.042/33.1	.046/24.2	.059/16.5	.078/16.5	.102/16.5	.131/16.5	.153/11.2	.177/10.5	.197/9.8	.212/8.1	.230/8.1	.237/8.1	.237/8.1	
	15	.044/33.1	.049/33.1	.057/33.1	.073/16.5	.092/16.5	.114/16.5	.136/12.8	.156/12.6	.174/12.1	.188/11.6	.198/11.2	.205/11.2	.207/11.2	
	17	.045/33.1	.049/33.1	.056/33.1	.074/16.5	.094/16.5	.121/16.5	.141/16.5	.163/14.3	.184/14.3	.196/13.7	.198/13.1	.181/12.8	.183/12.6	
	19	.045/33.1	.047/33.1	.054/33.1	.064/24.2	.084/24.2	.104/24.2	.121/16.5	.138/16.5	.154/16.5	.168/16.5	.184/16.5	.161/14.6	.163/14.3	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

OE 1040															
SHORTCUTTED RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS (ACC. X 100)															
HELICOPTER DECK HULLSEYE - 35.7 FT FORWARD OF AP AND 31.0 FT FROM BL															
SHIP HEADING ANGLE IN DEGREES															
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.642/8.3	.282/8.1	.371/6.7	.469/6.5	.559/5.7	.627/5.7	.688/5.7	.738/5.7	.788/5.7	.838/5.7	.888/5.7	.938/5.7	.988/5.7	
9	9	.552/10.5	.276/10.5	.331/10.1	.400/8.3	.469/6.5	.523/6.8	.567/6.7	.608/6.8	.646/6.8	.682/6.8	.718/6.8	.754/6.8	.790/6.8	
11	11	.437/11.2	.251/11.2	.286/10.6	.332/10.5	.381/9.8	.425/9.9	.460/7.5	.484/7.5	.512/7.5	.540/7.5	.568/7.5	.596/7.5	.624/7.5	
13	13	.311/12.1	.220/12.1	.243/11.6	.276/11.2	.311/10.8	.344/10.1	.373/8.3	.394/8.1	.407/7.9	.413/7.9	.415/8.1	.414/8.1	.414/8.1	
15	15	.184/12.6	.190/12.6	.207/12.6	.230/12.1	.257/11.6	.283/11.2	.306/10.5	.324/8.7	.336/8.3	.343/8.3	.347/8.3	.348/8.5	.348/8.5	
17	17	.160/13.4	.164/13.4	.177/13.1	.194/13.1	.215/12.6	.239/12.1	.254/11.2	.269/10.5	.280/8.7	.287/8.7	.291/8.7	.293/8.7	.293/8.7	
19	19	.139/14.3	.142/14.3	.152/14.0	.166/13.7	.182/13.4	.198/12.8	.214/12.1	.226/11.2	.236/10.8	.242/9.0	.246/9.0	.248/9.0	.248/9.0	
21	21	.121/15.0	.124/14.6	.132/14.6	.143/14.3	.156/14.3	.170/13.7	.182/13.1	.193/12.6	.201/11.2	.207/11.2	.211/10.4	.213/10.1	.213/10.1	
10	7	.140/12.8	.183/8.5	.274/6.3	.379/6.3	.480/5.7	.563/5.7	.626/5.7	.659/5.7	.683/6.3	.693/6.3	.695/6.3	.694/6.3	.694/6.3	
9	9	.152/13.7	.173/13.7	.240/13.7	.320/7.0	.404/6.7	.482/6.7	.546/6.7	.593/6.7	.621/6.8	.631/6.8	.628/7.0	.620/7.1	.617/7.1	
11	11	.149/14.6	.165/14.0	.207/14.0	.265/13.7	.329/8.5	.392/7.9	.449/7.5	.495/7.5	.529/7.5	.549/7.5	.560/7.7	.563/7.7	.564/7.7	
13	13	.137/14.6	.148/14.6	.177/14.3	.220/14.0	.269/13.7	.319/8.7	.366/8.3	.407/8.1	.438/8.1	.460/8.1	.474/8.1	.481/8.1	.483/8.1	
15	15	.123/15.3	.131/15.3	.152/15.0	.184/14.6	.223/13.7	.263/13.1	.301/9.0	.335/8.5	.362/8.5	.383/8.5	.396/8.5	.404/8.5	.406/8.5	
17	17	.104/16.1	.115/16.1	.132/15.7	.156/15.0	.187/14.3	.219/13.4	.250/11.6	.279/9.2	.302/9.0	.320/8.7	.332/8.7	.339/8.7	.342/8.7	
19	19	.097/17.0	.101/17.0	.114/16.5	.134/15.7	.159/15.0	.185/14.0	.211/12.8	.235/11.6	.255/9.2	.270/9.0	.281/9.0	.287/9.0	.289/9.0	
21	21	.086/18.0	.090/18.0	.100/17.5	.116/17.0	.136/15.7	.158/15.0	.180/13.7	.200/12.6	.217/11.2	.230/9.2	.240/9.2	.245/9.2	.247/9.2	
15	7	.085/14.3	.130/10.5	.225/6.7	.338/6.3	.452/5.7	.554/5.7	.633/5.7	.683/6.3	.702/6.3	.693/6.3	.664/6.3	.632/6.3	.617/6.4	
9	9	.093/17.5	.112/17.5	.162/17.5	.231/7.9	.311/7.3	.392/7.1	.468/7.1	.533/7.1	.583/7.3	.618/7.3	.639/7.3	.649/7.5	.651/7.5	
11	11	.089/20.3	.102/20.3	.138/20.3	.190/14.3	.253/10.8	.316/7.9	.382/7.9	.438/7.9	.484/7.9	.518/8.1	.541/8.1	.553/8.1	.557/8.1	
13	13	.082/20.3	.091/20.3	.119/20.3	.159/17.5	.208/11.6	.261/10.8	.313/8.5	.360/8.5	.400/8.5	.431/8.5	.452/8.5	.464/8.5	.468/8.5	
15	15	.075/20.3	.082/20.3	.103/20.3	.135/20.3	.174/14.3	.211/12.1	.260/10.8	.299/9.0	.333/8.7	.360/8.7	.378/9.0	.390/9.0	.393/9.0	
17	17	.068/20.3	.074/20.3	.090/20.3	.116/20.3	.148/17.5	.183/15.3	.218/12.1	.251/10.5	.280/9.2	.303/9.2	.319/9.0	.329/9.0	.332/9.0	
19	19	.062/20.3	.066/20.3	.079/20.3	.100/20.3	.127/17.5	.158/15.0	.186/14.3	.214/12.1	.240/10.1	.258/9.2	.272/9.2	.280/9.2	.283/9.2	
20	7	.057/13.4	.102/13.4	.200/5.7	.323/5.7	.451/5.7	.570/5.7	.666/6.3	.733/6.3	.770/6.3	.770/6.3	.749/6.4	.722/6.5	.709/6.5	
9	9	.059/13.4	.091/13.4	.167/13.4	.271/6.3	.390/6.3	.509/6.4	.618/6.5	.709/6.7	.777/6.8	.821/6.8	.843/7.0	.851/7.0	.852/7.0	
11	11	.060/19.0	.081/19.0	.138/13.4	.219/7.9	.316/6.5	.417/6.7	.514/6.8	.601/7.0	.673/7.1	.726/7.1	.761/7.3	.780/7.3	.785/7.3	
13	13	.058/23.3	.073/23.3	.116/19.0	.178/13.4	.255/7.3	.337/7.1	.418/7.1	.493/7.1	.557/7.3	.607/7.3	.642/7.3	.662/7.3	.669/7.3	
15	15	.055/23.3	.066/23.3	.098/23.3	.148/13.4	.208/13.4	.275/7.1	.342/7.1	.404/7.3	.459/7.3	.502/7.3	.534/7.5	.552/7.5	.558/7.5	
17	17	.052/26.2	.060/26.2	.085/23.3	.124/13.4	.173/13.4	.227/7.3	.283/7.3	.335/7.3	.380/7.3	.418/7.5	.445/7.5	.461/7.5	.466/7.5	
19	19	.048/26.2	.055/26.2	.074/26.2	.105/19.0	.146/13.4	.191/13.4	.237/7.3	.280/7.3	.319/7.5	.351/7.5	.374/7.5	.388/7.5	.392/7.5	
21	21	.045/26.2	.050/26.2	.066/26.2	.092/23.3	.125/19.0	.161/13.4	.201/13.4	.239/7.3	.270/7.5	.297/7.5	.317/7.5	.329/7.5	.333/7.7	
25	7	.054/16.5	.093/8.7	.191/5.7	.322/5.7	.464/6.3	.597/6.3	.708/6.3	.788/6.3	.833/6.3	.843/6.5	.827/6.7	.802/6.7	.790/6.7	
9	9	.046/16.5	.077/16.5	.158/16.5	.275/6.3	.412/6.5	.554/6.7	.688/6.8	.804/6.8	.895/7.1	.958/7.1	.996/7.3	.1015/7.3	.1020/7.3	
11	11	.042/16.5	.065/16.5	.128/16.5	.221/6.5	.335/6.7	.453/6.8	.580/7.1	.692/7.3	.788/7.3	.863/7.5	.916/7.5	.946/7.5	.956/7.5	
13	13	.040/16.5	.057/16.5	.105/16.5	.176/6.7	.269/6.8	.371/7.1	.472/7.1	.569/7.3	.655/7.5	.724/7.5	.774/7.7	.805/7.7	.815/7.7	
15	15	.039/24.2	.051/16.5	.088/16.5	.146/16.5	.218/6.8	.300/7.1	.385/7.3	.466/7.5	.538/7.5	.598/7.7	.642/7.7	.669/7.7	.678/7.7	
17	17	.037/33.1	.046/24.2	.075/16.5	.121/16.5	.180/7.0	.247/7.1	.317/7.3	.384/7.5	.445/7.7	.495/7.7	.533/7.7	.556/7.7	.564/7.7	
19	19	.035/33.1	.042/33.1	.065/16.5	.103/16.5	.151/16.5	.204/7.3	.264/7.3	.320/7.5	.371/7.7	.414/7.7	.446/7.7	.466/7.7	.473/7.7	
21	21	.033/33.1	.039/33.1	.058/33.1	.088/16.5	.129/16.5	.175/7.1	.223/7.3	.271/7.5	.314/7.7	.350/7.7	.378/7.7	.394/7.7	.400/7.9	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

50711.

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

DLG 26

RMS TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

LONGCRESTED
RMS ROLL IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/9.5	.147/9.5	.221/9.5	.280/9.8	.366/9.5	.366/9.2	.247/9.2	.242/9.0	.201/8.3	.130/8.3	.074/8.5	.034/9.00	.000/9.00
	9	.000/9.5	.163/9.5	.275/9.8	.417/9.8	.567/9.8	.567/9.8	.439/9.5	.432/9.5	.405/9.5	.324/9.5	.222/9.2	.123/9.20	.000/9.00
	11	.000/9.5	.141/9.5	.253/9.8	.401/10.1	.548/9.8	.555/9.8	.466/9.8	.476/9.8	.471/9.8	.410/9.5	.303/10.1	.179/9.30	.000/9.00
	13	.000/9.5	.115/9.5	.213/10.1	.341/10.1	.465/9.8	.475/9.8	.413/9.8	.431/9.8	.438/9.8	.394/9.5	.300/10.1	.180/10.10	.000/9.00
	15	.000/9.5	.094/9.5	.176/10.1	.282/10.1	.382/9.8	.392/9.8	.347/9.8	.366/9.8	.377/9.8	.344/9.5	.265/10.1	.159/10.10	.000/9.00
	17	.000/9.5	.077/9.5	.146/10.1	.252/10.1	.313/9.8	.322/9.8	.289/9.8	.306/9.8	.317/9.8	.292/9.5	.226/10.1	.136/10.10	.000/9.00
	19	.000/9.5	.064/9.5	.122/10.1	.193/10.1	.259/9.8	.267/9.8	.242/9.8	.257/9.8	.266/9.8	.246/9.5	.191/10.1	.115/10.10	.000/9.00
21	.000/9.5	.054/9.5	.103/10.1	.162/10.1	.217/9.8	.224/9.8	.204/9.8	.217/9.8	.225/9.8	.208/9.5	.162/10.1	.097/10.10	.000/9.00	
10	7	.000/13.4	.042/12.8	.122/11.6	.441/9.8	.466/9.8	.417/9.2	.223/9.0	.189/8.3	.139/7.7	.084/7.7	.043/7.9	.019/8.10	.000/9.00
	9	.000/13.4	.050/12.8	.131/11.6	.387/9.8	.561/10.1	.577/9.5	.378/9.5	.335/9.8	.287/9.8	.217/10.1	.141/10.1	.072/10.10	.000/9.00
	11	.000/13.4	.052/12.8	.126/11.6	.321/9.8	.494/10.1	.520/9.8	.402/9.8	.359/10.1	.367/10.5	.309/10.5	.220/10.1	.122/11.20	.000/9.00
	13	.000/13.4	.049/12.8	.114/11.6	.261/9.8	.409/10.1	.436/9.8	.359/9.8	.365/10.1	.361/10.5	.319/10.5	.237/11.2	.136/11.20	.000/9.00
	15	.000/16.1	.044/15.7	.099/11.3	.213/9.8	.332/9.8	.304/9.8	.317/10.1	.321/10.5	.321/10.5	.290/10.5	.220/11.2	.128/11.20	.000/9.00
	17	.000/16.1	.039/15.7	.085/11.6	.175/9.8	.271/10.5	.233/9.8	.255/10.1	.269/10.1	.276/10.8	.252/10.5	.193/11.2	.113/11.20	.000/9.00
	19	.000/16.1	.034/16.1	.073/15.0	.146/9.8	.224/10.5	.243/9.8	.214/10.1	.228/10.1	.235/10.8	.216/10.5	.166/11.2	.097/11.20	.000/9.00
21	.000/16.1	.029/16.1	.063/15.0	.123/9.8	.187/10.5	.204/9.8	.181/10.1	.193/10.1	.200/10.8	.184/10.5	.143/11.2	.084/11.20	.000/9.00	
15	7	.000/20.3	.022/20.9	.048/17.5	.124/14.3	.493/10.1	.448/9.2	.200/8.7	.148/7.5	.100/7.7	.056/7.9	.029/8.1	.012/8.30	.000/9.00
	9	.000/20.3	.030/19.6	.072/17.5	.159/14.3	.467/11.2	.528/9.8	.323/9.5	.250/10.1	.196/9.8	.136/10.1	.090/10.1	.045/10.80	.000/9.00
	11	.000/20.3	.035/19.6	.082/17.5	.162/14.6	.393/11.2	.472/10.1	.344/9.8	.301/10.1	.258/10.8	.202/11.2	.153/11.2	.087/11.20	.000/9.00
	13	.000/20.3	.036/19.6	.080/17.5	.148/14.6	.320/11.6	.390/10.1	.311/10.1	.293/10.8	.266/11.6	.224/11.6	.183/11.2	.110/11.20	.000/9.00
	15	.000/20.3	.034/19.6	.073/17.5	.129/15.0	.260/11.6	.318/10.1	.266/10.1	.261/10.8	.246/11.6	.215/11.6	.181/11.2	.112/12.60	.000/9.00
	17	.000/20.3	.030/19.6	.065/17.5	.111/15.0	.213/11.6	.261/10.1	.224/10.1	.225/10.8	.217/11.6	.193/11.6	.165/11.6	.103/12.60	.000/9.00
	19	.000/20.3	.027/19.6	.057/17.5	.095/15.3	.177/11.6	.216/10.1	.189/10.1	.192/10.8	.188/11.6	.164/11.6	.144/11.6	.091/12.60	.000/9.00
21	.000/20.3	.024/19.6	.050/17.5	.082/15.3	.149/11.6	.181/10.1	.161/10.1	.165/11.2	.162/11.6	.147/11.6	.127/11.6	.074/12.60	.000/9.00	
20	7	.000/7.1	.025/7.0	.042/24.2	.080/19.0	.243/13.4	.544/9.5	.195/8.7	.126/7.5	.080/7.7	.042/7.9	.021/8.1	.009/8.10	.000/9.00
	9	.000/7.1	.026/26.2	.057/23.3	.118/19.0	.281/13.4	.574/9.8	.311/9.5	.215/10.1	.155/9.8	.102/9.5	.064/10.1	.031/10.10	.000/9.00
	11	.000/27.3	.030/26.2	.067/23.3	.129/19.0	.260/13.4	.489/10.1	.332/9.8	.268/10.8	.212/11.6	.160/11.6	.119/11.6	.069/12.60	.000/9.00
	13	.000/27.3	.031/26.2	.068/23.3	.122/19.0	.223/13.4	.396/10.1	.300/10.1	.268/11.2	.229/11.6	.189/11.6	.154/12.6	.096/12.60	.000/9.00
	15	.000/27.3	.029/26.2	.063/23.3	.109/19.0	.187/13.4	.320/10.1	.257/10.1	.243/11.2	.219/11.6	.190/12.6	.160/12.6	.103/12.60	.000/9.00
	17	.000/27.3	.027/26.2	.056/23.3	.095/19.0	.157/13.4	.260/10.1	.217/10.1	.212/11.2	.197/12.1	.175/12.8	.151/12.6	.097/12.60	.000/9.00
	19	.000/27.3	.024/26.2	.050/23.3	.082/19.0	.133/13.4	.215/10.1	.184/10.1	.182/11.2	.173/12.1	.156/12.8	.136/12.6	.087/12.60	.000/9.00
21	.000/27.3	.021/26.2	.044/23.3	.072/19.0	.113/13.4	.180/10.1	.156/10.1	.157/11.2	.151/12.1	.138/12.8	.120/12.6	.077/12.60	.000/9.00	
25	7	.000/7.7	.041/7.5	.076/6.8	.071/26.2	.179/15.5	.633/9.8	.189/8.5	.108/7.9	.065/7.7	.033/7.7	.017/7.9	.007/8.10	.000/9.00
	9	.000/40.3	.036/44.9	.070/33.1	.103/24.2	.224/15.5	.626/10.1	.286/9.5	.191/10.1	.125/9.5	.082/9.5	.051/10.1	.024/10.10	.000/9.00
	11	.000/39.3	.035/37.0	.072/29.9	.114/24.2	.216/15.5	.511/10.1	.316/10.1	.230/10.8	.175/11.6	.132/11.6	.098/12.6	.052/12.60	.000/9.00
	13	.000/33.1	.034/33.1	.069/29.9	.109/24.2	.189/15.5	.467/10.5	.287/10.1	.237/11.2	.198/12.1	.164/12.8	.133/12.6	.076/12.60	.000/9.00
	15	.000/33.1	.031/33.1	.063/29.9	.099/24.2	.162/15.5	.324/10.5	.247/10.1	.219/12.1	.195/13.1	.170/12.8	.144/12.8	.085/14.30	.000/9.00
	17	.000/33.1	.028/33.1	.056/29.9	.087/24.2	.137/15.5	.253/10.5	.209/10.5	.194/12.1	.180/13.1	.161/12.8	.140/12.8	.084/14.30	.000/9.00
	19	.000/33.1	.025/33.1	.050/29.9	.076/24.2	.117/15.5	.216/10.5	.177/10.5	.168/12.1	.160/13.1	.146/12.8	.128/14.3	.077/14.30	.000/9.00
21	.000/33.1	.022/33.1	.044/29.9	.067/24.2	.100/15.5	.191/10.5	.151/10.5	.166/12.1	.141/13.1	.130/13.1	.114/14.3	.069/14.30	.000/9.00	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
COUNTERED MODAL PERIOD, T, IN SECONDS
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.020/11.2	.021/10.8	.025/10.5	.035/9.8	.055/8.3	.077/6.7	.019/5.7	.072/6.3	.071/6.7	.049/7.0	.035/7.5	.028/7.7	.027/7.7	
	9	.042/12.1	.043/12.1	.048/11.6	.057/10.8	.067/9.2	.069/7.5	.014/5.7	.070/7.0	.086/7.7	.076/8.1	.065/8.3	.059/8.5	.056/8.5	
	11	.058/13.4	.059/13.1	.062/12.1	.065/11.5	.066/10.5	.054/9.0	.010/5.7	.060/7.5	.082/8.3	.082/9.0	.078/9.2	.075/9.2	.074/9.8	
	13	.064/14.3	.065/14.3	.065/13.1	.065/12.6	.060/11.2	.048/9.0	.007/5.7	.050/8.1	.072/9.2	.078/10.1	.079/10.1	.079/10.8	.078/10.8	
	15	.065/14.6	.064/14.6	.063/14.3	.060/13.7	.054/12.6	.033/11.2	.006/5.7	.041/9.2	.063/10.5	.071/11.2	.075/11.2	.076/11.2	.076/11.2	
	17	.062/15.7	.061/15.7	.059/15.3	.055/14.0	.047/13.4	.033/12.1	.004/5.7	.035/10.8	.054/11.6	.064/11.6	.069/12.6	.071/12.6	.071/12.6	
10	7	.016/14.3	.017/12.8	.021/12.8	.030/11.6	.047/9.5	.071/7.1	.018/5.7	.065/6.5	.067/6.7	.050/7.3	.036/7.5	.028/7.7	.026/7.7	
	9	.037/15.0	.039/14.6	.044/13.7	.051/12.6	.060/10.5	.064/8.1	.013/5.7	.066/7.0	.085/7.7	.080/8.1	.070/8.3	.063/8.5	.061/8.5	
	11	.053/15.7	.057/15.3	.067/14.6	.080/13.1	.090/11.6	.053/8.7	.010/5.7	.058/7.5	.082/8.3	.086/9.0	.083/9.2	.080/9.2	.079/9.2	
	13	.059/16.1	.060/16.1	.060/15.3	.060/14.3	.056/12.6	.044/9.8	.007/5.7	.048/8.3	.073/9.2	.082/9.5	.084/10.1	.083/10.1	.083/10.1	
	15	.060/17.0	.060/17.0	.059/16.1	.057/15.3	.050/13.4	.037/12.1	.006/5.7	.041/9.2	.063/10.5	.074/10.5	.078/11.2	.080/11.2	.080/11.2	
	17	.058/18.0	.057/18.0	.055/17.5	.052/16.5	.044/14.3	.031/12.6	.004/5.7	.034/10.8	.055/11.6	.066/12.8	.071/12.6	.074/12.6	.075/12.6	
15	7	.014/20.3	.015/19.6	.019/17.5	.027/14.3	.042/11.2	.064/7.9	.017/5.7	.059/6.7	.061/7.1	.046/7.3	.033/7.5	.027/7.7	.025/7.9	
	9	.033/20.3	.035/19.6	.039/17.5	.047/14.6	.055/12.1	.058/8.5	.013/5.7	.063/7.0	.082/7.7	.079/8.1	.071/8.3	.065/8.5	.062/8.5	
	11	.048/20.3	.049/19.6	.052/17.5	.055/15.3	.056/12.9	.049/9.5	.010/5.7	.056/7.9	.081/8.3	.087/9.0	.086/9.2	.083/9.2	.082/9.2	
	13	.055/20.3	.055/19.6	.056/17.5	.056/15.7	.052/13.7	.041/11.2	.006/5.7	.047/8.3	.072/9.2	.083/9.5	.086/10.1	.087/10.1	.087/10.1	
	15	.056/20.3	.056/19.6	.055/18.0	.053/16.5	.047/14.6	.034/12.1	.006/5.7	.039/9.5	.063/9.8	.075/10.5	.081/11.2	.083/11.2	.083/11.2	
	17	.054/20.3	.053/19.6	.052/19.0	.048/17.5	.042/15.3	.024/13.1	.005/5.7	.033/10.8	.055/11.6	.067/11.6	.073/12.6	.076/12.6	.077/12.6	
20	7	.013/31.4	.014/29.9	.017/24.2	.024/19.0	.039/13.4	.057/8.5	.016/5.7	.054/7.0	.054/7.1	.040/7.7	.029/7.9	.023/7.9	.021/8.1	
	9	.031/27.3	.032/26.2	.036/23.3	.043/19.0	.051/13.4	.053/9.2	.013/5.7	.059/7.5	.077/7.9	.075/8.3	.068/8.5	.062/8.7	.060/8.7	
	11	.045/27.3	.045/26.2	.047/23.3	.051/19.0	.053/13.4	.046/10.1	.010/5.7	.053/7.9	.078/8.5	.085/9.0	.085/9.2	.083/9.2	.082/9.2	
	13	.051/27.3	.051/26.2	.051/23.3	.052/19.0	.050/14.6	.039/11.6	.008/5.7	.045/8.5	.071/9.2	.082/9.5	.086/10.1	.087/10.1	.087/10.1	
	15	.052/27.3	.051/26.2	.051/23.3	.049/19.0	.045/15.3	.033/12.6	.006/5.7	.038/9.8	.062/9.8	.075/10.5	.081/11.2	.084/11.2	.084/11.2	
	17	.050/27.3	.049/26.2	.048/23.3	.045/19.0	.039/16.1	.028/13.4	.005/15.7	.033/12.1	.054/11.6	.066/11.6	.073/12.6	.077/12.6	.077/12.6	
25	7	.014/48.3	.015/46.8	.016/44.9	.021/36.2	.035/16.5	.053/9.2	.016/5.7	.050/7.0	.048/7.7	.034/7.9	.024/8.1	.019/8.3	.017/8.3	
	9	.031/48.3	.032/46.9	.034/43.1	.038/36.2	.048/16.5	.050/9.8	.013/5.7	.056/7.5	.072/8.1	.070/8.5	.063/8.7	.057/9.0	.055/9.0	
	11	.043/48.3	.044/46.9	.044/42.9	.046/36.2	.050/16.5	.047/11.2	.010/6.3	.051/8.1	.075/8.5	.082/9.0	.082/9.2	.080/9.2	.079/9.8	
	13	.048/48.3	.048/46.9	.047/42.9	.047/36.2	.047/16.5	.037/12.1	.008/10.5	.044/8.7	.069/9.2	.080/9.5	.084/10.1	.086/10.1	.086/10.1	
	15	.049/48.3	.049/46.9	.047/42.9	.045/36.2	.042/16.5	.032/13.1	.007/14.0	.037/10.1	.061/10.5	.073/10.5	.080/11.2	.083/11.2	.083/11.2	
	17	.047/48.3	.047/46.9	.045/42.9	.042/36.2	.037/16.5	.027/14.0	.006/15.7	.032/12.1	.053/11.6	.065/11.6	.073/12.6	.076/12.6	.076/12.6	
30	7	.013/51.4	.014/49.9	.017/47.8	.024/42.6	.039/37.0	.057/31.4	.016/30.9	.054/35.7	.054/35.8	.040/31.0	.029/36.2	.023/36.2	.021/36.2	
	9	.031/47.3	.032/45.8	.036/42.9	.043/48.3	.051/42.7	.053/37.0	.013/30.9	.059/35.7	.077/35.9	.075/36.3	.068/36.5	.062/36.7	.060/36.7	
	11	.045/47.3	.045/45.8	.047/42.9	.051/48.3	.053/42.7	.046/37.0	.010/30.9	.053/35.7	.078/35.9	.085/36.3	.085/36.5	.083/36.5	.082/36.5	
	13	.051/47.3	.051/45.8	.051/42.9	.052/48.3	.050/42.7	.039/37.0	.008/30.9	.045/35.7	.071/35.9	.082/36.3	.086/36.5	.087/36.5	.087/36.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LUNGCRESTED
RMS LAT VISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM RL

SHIP HEADINGS ANGLE IN DEGREES															NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180															
5	7	.000/9.5	.007/9.5	.014/9.2	.024/10.5	.045/9.8	.066/9.5	.131/7.5	.081/7.5	.032/7.9	.014/8.3	.008/6.3	.004/6.5	.000/6.0															
9	9	.000/9.5	.015/13.1	.034/12.6	.061/11.6	.099/10.8	.143/10.1	.168/10.1	.125/10.1	.071/9.8	.038/10.5	.020/10.1	.009/10.1	.000/9.0															
11	11	.000/14.6	.027/14.3	.059/14.3	.097/13.7	.143/12.6	.183/12.1	.198/11.6	.162/11.2	.112/11.6	.071/11.6	.042/11.2	.019/11.2	.000/10.0															
13	13	.000/15.7	.039/15.7	.081/15.7	.127/15.3	.173/14.6	.210/14.3	.221/14.0	.190/13.4	.144/13.4	.100/12.8	.062/12.8	.039/12.8	.000/12.0															
15	15	.000/17.5	.048/17.5	.098/17.5	.148/17.0	.195/16.5	.230/16.1	.238/15.7	.212/15.3	.169/15.0	.123/14.6	.079/14.6	.039/14.6	.000/14.0															
17	17	.000/19.6	.054/19.6	.109/19.0	.162/19.0	.209/18.5	.241/18.0	.248/18.0	.225/17.5	.185/17.0	.138/17.0	.091/16.5	.045/16.5	.000/16.0															
19	19	.000/20.3	.059/20.3	.116/19.6	.170/19.6	.216/19.0	.246/18.5	.253/18.0	.233/17.5	.195/17.0	.149/16.6	.100/16.6	.050/16.6	.000/16.0															
21	21	.000/22.4	.061/22.4	.121/22.4	.175/21.7	.220/21.7	.249/20.9	.255/20.9	.238/20.3	.202/20.3	.157/19.6	.106/19.6	.053/19.6	.000/19.0															
10	7	.000/62.8	.009/13.4	.017/12.6	.031/12.1	.037/10.5	.095/9.2	.131/7.5	.077/7.5	.029/8.1	.012/8.3	.006/6.3	.003/6.5	.000/6.0															
9	9	.000/15.3	.019/15.3	.040/14.6	.070/13.4	.113/12.1	.155/10.5	.169/9.8	.120/9.8	.067/9.5	.034/10.1	.017/10.1	.007/11.2	.000/10.0															
11	11	.000/17.0	.032/17.0	.068/16.1	.109/15.3	.157/14.6	.194/13.4	.199/11.6	.155/11.2	.103/11.6	.063/11.6	.035/11.6	.016/12.8	.000/12.0															
13	13	.000/18.5	.044/18.0	.091/17.5	.140/16.5	.188/15.7	.220/15.0	.221/14.0	.183/13.4	.134/13.4	.090/12.8	.054/12.8	.026/12.8	.000/12.0															
15	15	.000/19.6	.054/19.6	.108/19.0	.161/18.5	.209/17.5	.234/16.5	.238/15.7	.204/15.3	.158/15.0	.112/14.6	.071/14.6	.034/14.6	.000/14.0															
17	17	.000/21.7	.060/21.7	.119/20.9	.174/20.3	.221/19.6	.248/18.5	.247/18.0	.218/17.5	.175/17.0	.128/17.0	.083/16.5	.041/16.5	.000/16.0															
19	19	.000/22.4	.064/21.7	.125/21.7	.181/20.9	.227/19.6	.253/19.0	.252/18.0	.227/18.0	.186/17.0	.139/16.6	.092/16.6	.046/16.6	.000/16.0															
21	21	.000/24.2	.066/24.2	.130/24.2	.186/23.3	.230/22.4	.255/21.7	.255/20.9	.232/20.3	.194/20.3	.148/19.6	.099/19.6	.050/19.6	.000/19.0															
15	7	.000/7.3	.057/7.3	.072/17.5	.062/14.3	.088/11.6	.107/9.5	.131/7.5	.073/7.5	.027/8.1	.011/8.3	.005/6.3	.002/6.5	.000/6.0															
9	9	.000/7.3	.046/19.6	.070/17.5	.089/15.3	.127/13.1	.167/10.8	.170/9.8	.115/9.5	.052/9.5	.032/9.5	.015/10.1	.006/10.1	.000/10.0															
11	11	.000/7.3	.048/19.6	.084/18.5	.128/16.5	.173/14.6	.206/12.8	.199/11.6	.149/12.1	.096/11.6	.058/11.6	.032/12.8	.014/12.8	.000/12.0															
13	13	.000/7.3	.056/20.3	.108/19.6	.158/17.5	.203/15.7	.231/15.3	.221/14.0	.176/13.4	.125/13.1	.082/13.1	.044/14.3	.023/14.3	.000/14.0															
15	15	.000/21.7	.064/21.7	.123/20.3	.178/19.6	.223/18.5	.247/17.0	.237/17.0	.197/15.3	.148/15.0	.103/14.6	.064/14.6	.031/14.6	.000/14.0															
17	17	.000/23.3	.068/22.4	.132/21.7	.189/20.3	.234/19.0	.256/19.0	.247/18.0	.211/17.5	.165/17.0	.119/17.0	.076/16.5	.037/16.5	.000/16.0															
19	19	.000/25.1	.072/24.2	.138/23.3	.195/22.4	.239/20.9	.260/19.6	.252/18.0	.220/18.0	.177/19.6	.130/19.6	.085/19.6	.042/19.6	.000/19.0															
21	21	.000/27.3	.074/26.2	.142/26.2	.199/25.1	.241/23.3	.261/22.4	.254/20.9	.226/20.3	.185/20.3	.139/19.6	.093/19.6	.046/19.6	.000/19.0															
20	7	.000/7.3	.099/7.3	.155/69.8	.166/19.0	.100/13.4	.122/9.8	.131/7.5	.070/7.5	.026/8.1	.009/8.3	.004/8.7	.002/6.5	.000/6.0															
9	9	.000/7.3	.095/26.2	.140/23.3	.153/19.0	.189/14.6	.142/11.2	.170/9.8	.110/9.5	.058/9.5	.029/9.5	.014/10.1	.006/10.1	.000/10.0															
11	11	.000/7.3	.087/26.2	.138/23.3	.170/19.0	.194/16.1	.120/13.4	.200/11.6	.143/12.1	.090/11.6	.053/11.6	.028/12.8	.012/12.8	.000/12.0															
13	13	.000/7.3	.086/26.2	.146/23.3	.191/19.0	.224/17.0	.143/14.6	.200/11.6	.169/13.4	.117/13.1	.075/13.1	.044/14.3	.020/14.3	.000/14.0															
15	15	.000/7.3	.088/26.2	.155/23.3	.206/20.9	.242/18.5	.258/17.5	.237/15.7	.190/15.3	.139/15.0	.095/14.6	.058/14.6	.027/14.6	.000/14.0															
17	17	.000/7.3	.089/26.2	.160/23.3	.214/22.4	.251/20.3	.265/18.0	.246/18.0	.204/17.5	.156/17.0	.110/17.0	.069/16.5	.033/16.5	.000/16.0															
19	19	.000/7.3	.090/26.2	.163/23.3	.218/24.2	.254/21.7	.267/19.6	.247/18.0	.213/18.0	.167/19.6	.121/19.6	.078/19.6	.038/19.6	.000/19.0															
21	21	.000/7.3	.091/26.2	.166/26.2	.221/25.2	.256/24.2	.268/24.2	.253/20.9	.220/20.3	.177/20.3	.131/19.6	.086/19.6	.042/19.6	.000/19.0															
25	7	.000/7.3	.086/9.5	.173/89.8	.173/44.9	.208/15.5	.141/10.5	.131/7.5	.067/7.9	.024/8.1	.008/8.3	.003/8.7	.001/6.5	.000/6.0															
9	9	.000/7.3	.132/48.3	.222/39.3	.253/24.2	.211/15.5	.199/12.1	.171/9.8	.105/9.5	.035/9.5	.027/10.1	.013/10.1	.005/10.1	.000/10.0															
11	11	.000/7.3	.148/34.9	.235/29.9	.254/24.2	.249/15.5	.257/14.0	.200/11.2	.137/12.1	.048/11.6	.048/11.6	.026/11.2	.011/11.2	.000/11.0															
13	13	.000/7.3	.150/33.1	.236/29.9	.259/24.2	.260/15.5	.257/15.3	.221/14.0	.162/13.7	.109/13.4	.069/14.3	.040/14.3	.019/14.3	.000/14.0															
15	15	.000/7.3	.147/33.1	.234/29.9	.263/24.2	.273/19.6	.270/16.5	.236/15.7	.183/15.3	.131/15.0	.089/14.6	.053/14.6	.025/14.6	.000/14.0															
17	17	.000/7.3	.141/33.1	.229/29.9	.264/24.2	.277/20.9	.275/18.5	.245/18.0	.197/17.5	.147/17.0	.102/17.0	.064/16.5	.030/16.5	.000/16.0															
19	19	.000/7.3	.135/33.1	.223/29.9	.262/24.2	.278/23.3	.276/20.3	.246/18.0	.196/18.0	.158/19.6	.113/19.6	.072/19.6	.035/19.6	.000/19.0															
21	21	.000/7.3	.130/33.1	.218/29.9	.260/24.2	.278/23.3	.276/23.3	.252/20.9	.213/20.3	.168/20.3	.123/19.6	.080/19.6	.039/19.6	.000/19.0															

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

LONGCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T*, IN SECONDS
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM RL

VT	0	SHIP HEADING ANGLE IN DEGREES										180					
		15	30	45	60	75	90	105	120	135	150	165	180				
5	7	.000/9.5	.004/9.5	.009/9.2	.016/10.1	.030/9.8	.067/8.3	.125/7.0	.072/7.0	.027/7.7	.013/5.7	.008/6.3	.004/6.5	.000/6.0	.000/6.0	.000/6.0	.000/6.0
	9	.000/9.5	.008/12.6	.018/12.1	.033/11.2	.058/10.5	.094/9.8	.135/8.5	.093/8.3	.049/8.7	.026/10.1	.014/10.1	.006/10.1	.000/10.0	.000/10.0	.000/10.0	.000/10.0
	11	.000/14.3	.012/14.3	.027/14.0	.048/12.8	.075/12.1	.106/10.8	.126/10.5	.102/10.8	.067/10.8	.041/11.2	.024/11.2	.011/11.2	.000/11.0	.000/11.0	.000/11.0	.000/11.0
	13	.000/15.7	.016/15.7	.034/15.3	.056/14.0	.082/13.4	.109/12.8	.126/12.6	.105/12.1	.076/12.1	.051/12.8	.032/12.8	.015/12.8	.000/12.8	.000/12.8	.000/12.8	.000/12.8
	15	.000/17.5	.018/17.5	.038/17.0	.060/15.3	.085/15.0	.107/14.3	.118/14.0	.104/13.7	.080/13.4	.059/14.6	.036/14.6	.018/14.6	.000/14.6	.000/14.6	.000/14.6	.000/14.6
	17	.000/19.6	.019/19.6	.040/19.6	.061/17.5	.083/17.5	.102/16.1	.112/15.7	.100/15.3	.080/15.0	.059/16.5	.039/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
10	7	.000/13.7	.004/13.4	.008/12.1	.017/12.1	.035/10.5	.070/8.7	.124/7.0	.073/7.0	.027/7.7	.013/8.3	.007/6.3	.003/6.3	.000/6.0	.000/6.0	.000/6.0	.000/6.0
	9	.000/15.3	.008/15.0	.017/14.3	.034/13.1	.061/11.6	.101/10.1	.130/8.7	.093/8.5	.050/9.0	.025/9.2	.013/9.2	.006/10.1	.000/10.0	.000/10.0	.000/10.0	.000/10.0
	11	.000/17.0	.016/16.5	.027/15.3	.048/14.3	.077/13.4	.108/11.2	.129/10.5	.102/10.8	.066/10.8	.040/11.6	.022/11.2	.010/11.2	.000/11.0	.000/11.0	.000/11.0	.000/11.0
	13	.000/18.0	.016/18.0	.034/18.0	.056/15.7	.085/14.6	.110/13.4	.126/12.6	.105/12.1	.075/12.1	.050/12.8	.030/12.8	.014/12.8	.000/12.8	.000/12.8	.000/12.8	.000/12.8
	15	.000/19.6	.018/19.6	.038/19.0	.060/17.0	.085/15.7	.108/15.0	.118/14.0	.103/13.7	.079/13.4	.056/14.6	.035/14.6	.017/14.6	.000/14.6	.000/14.6	.000/14.6	.000/14.6
	17	.000/21.7	.019/21.7	.039/21.7	.061/18.5	.083/17.5	.103/16.5	.112/15.7	.100/15.3	.080/15.0	.058/16.5	.038/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
15	7	.000/20.3	.006/19.6	.012/17.5	.020/14.3	.037/11.6	.073/9.2	.124/7.0	.073/7.3	.027/7.9	.012/8.3	.006/6.3	.003/6.3	.000/6.0	.000/6.0	.000/6.0	.000/6.0
	9	.000/20.3	.009/19.6	.020/17.5	.035/15.3	.062/12.8	.101/10.5	.130/9.0	.093/8.7	.050/9.0	.026/9.2	.013/9.2	.005/9.0	.000/9.0	.000/9.0	.000/9.0	.000/9.0
	11	.000/20.3	.013/19.6	.028/17.5	.048/16.5	.077/14.0	.110/11.6	.129/10.5	.102/10.8	.066/10.8	.039/11.2	.022/11.2	.010/12.8	.000/12.8	.000/12.8	.000/12.8	.000/12.8
	13	.000/20.3	.016/19.6	.034/19.0	.056/17.5	.085/15.7	.111/14.0	.126/12.6	.104/12.1	.078/13.1	.049/12.8	.029/12.8	.014/12.8	.000/12.8	.000/12.8	.000/12.8	.000/12.8
	15	.000/21.7	.018/20.9	.037/20.3	.060/18.5	.085/17.0	.108/15.3	.116/15.0	.103/13.7	.078/13.4	.055/14.6	.034/14.6	.017/14.6	.000/14.6	.000/14.6	.000/14.6	.000/14.6
	17	.000/22.4	.019/22.4	.039/21.7	.060/20.3	.083/18.5	.103/17.0	.111/15.7	.099/15.3	.079/14.6	.057/16.5	.037/16.5	.018/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
20	7	.000/23.3	.019/22.4	.038/21.7	.059/20.3	.080/19.0	.097/17.5	.104/18.0	.095/17.5	.077/17.0	.057/17.0	.038/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	9	.000/23.3	.019/22.4	.038/21.7	.059/20.3	.080/19.0	.097/17.5	.104/18.0	.095/17.5	.077/17.0	.057/17.0	.038/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	11	.000/23.3	.019/22.4	.038/21.7	.059/20.3	.080/19.0	.097/17.5	.104/18.0	.095/17.5	.077/17.0	.057/17.0	.038/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	13	.000/23.3	.019/22.4	.038/21.7	.059/20.3	.080/19.0	.097/17.5	.104/18.0	.095/17.5	.077/17.0	.057/17.0	.038/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	15	.000/23.3	.019/22.4	.038/21.7	.059/20.3	.080/19.0	.097/17.5	.104/18.0	.095/17.5	.077/17.0	.057/17.0	.038/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	17	.000/23.3	.019/22.4	.038/21.7	.059/20.3	.080/19.0	.097/17.5	.104/18.0	.095/17.5	.077/17.0	.057/17.0	.038/16.5	.019/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
25	7	.000/27.3	.008/26.2	.017/24.2	.026/21.7	.040/19.0	.079/14.6	.124/7.0	.073/7.3	.027/7.7	.011/8.3	.006/6.3	.003/6.3	.000/6.0	.000/6.0	.000/6.0	.000/6.0
	9	.000/27.3	.012/26.2	.024/23.3	.039/19.0	.063/14.3	.104/10.8	.131/9.0	.093/8.7	.050/9.2	.025/9.5	.013/10.1	.005/10.1	.000/10.0	.000/10.0	.000/10.0	.000/10.0
	11	.000/27.3	.015/26.2	.031/23.3	.050/19.0	.078/15.3	.113/12.6	.130/10.5	.101/10.8	.065/10.8	.039/10.5	.021/11.2	.009/11.2	.000/11.0	.000/11.0	.000/11.0	.000/11.0
	13	.000/27.3	.017/26.2	.036/23.3	.057/19.0	.084/17.0	.113/14.3	.125/12.6	.103/12.1	.073/13.1	.048/12.8	.024/12.8	.013/12.8	.000/12.8	.000/12.8	.000/12.8	.000/12.8
	15	.000/27.3	.019/26.2	.038/23.3	.061/19.0	.085/18.0	.109/15.7	.119/15.0	.102/13.7	.077/14.6	.054/14.6	.034/14.6	.016/14.6	.000/14.6	.000/14.6	.000/14.6	.000/14.6
	17	.000/27.3	.020/26.2	.039/23.3	.061/20.9	.083/19.6	.104/17.5	.111/15.7	.099/15.3	.078/15.0	.056/15.0	.036/16.5	.017/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
25	7	.000/27.3	.020/26.2	.039/23.3	.061/20.9	.083/19.6	.104/17.5	.111/15.7	.099/15.3	.078/15.0	.056/15.0	.036/16.5	.017/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	9	.000/27.3	.020/26.2	.039/23.3	.061/20.9	.083/19.6	.104/17.5	.111/15.7	.099/15.3	.078/15.0	.056/15.0	.036/16.5	.017/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	11	.000/27.3	.020/26.2	.039/23.3	.061/20.9	.083/19.6	.104/17.5	.111/15.7	.099/15.3	.078/15.0	.056/15.0	.036/16.5	.017/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	13	.000/27.3	.020/26.2	.039/23.3	.061/20.9	.083/19.6	.104/17.5	.111/15.7	.099/15.3	.078/15.0	.056/15.0	.036/16.5	.017/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	15	.000/27.3	.020/26.2	.039/23.3	.061/20.9	.083/19.6	.104/17.5	.111/15.7	.099/15.3	.078/15.0	.056/15.0	.036/16.5	.017/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
	17	.000/27.3	.020/26.2	.039/23.3	.061/20.9	.083/19.6	.104/17.5	.111/15.7	.099/15.3	.078/15.0	.056/15.0	.036/16.5	.017/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
(ACC. X 100)
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM BL

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/9.5	.010/9.5	.020/9.2	.034/10.1	.057/9.5	.169/7.9	.402/6.5	.214/7.0	.078/7.7	.044/5.7	.027/6.3	.013/6.3	.000/6.3
9	9	.000/9.5	.013/9.5	.031/12.1	.059/10.8	.110/10.1	.205/9.5	.352/7.5	.233/7.9	.114/8.3	.060/10.1	.034/10.1	.016/10.1	.000/10.1
11	11	.000/13.4	.018/13.4	.041/13.1	.076/12.6	.129/10.4	.205/10.1	.300/10.1	.233/10.1	.132/10.5	.079/10.5	.046/10.5	.021/10.5	.000/10.5
13	13	.000/14.5	.021/14.6	.047/14.3	.082/13.7	.130/12.6	.191/10.8	.256/10.5	.203/10.8	.136/11.6	.088/11.6	.054/11.2	.026/11.2	.000/11.2
15	15	.000/15.7	.023/15.7	.049/15.3	.081/15.0	.123/13.4	.172/12.8	.220/11.6	.182/12.1	.130/12.1	.090/12.8	.056/12.8	.027/12.8	.000/12.8
17	17	.000/17.5	.023/17.5	.048/17.0	.077/15.3	.113/15.0	.153/14.3	.189/14.0	.162/13.4	.121/13.1	.086/13.4	.053/14.3	.026/14.3	.000/14.3
19	19	.000/17.5	.022/17.5	.045/17.5	.072/17.0	.103/16.5	.136/14.6	.164/14.0	.143/15.0	.111/15.0	.081/14.6	.053/14.6	.026/14.6	.000/14.6
21	21	.000/19.6	.020/19.6	.042/19.0	.066/17.0	.093/16.5	.120/16.1	.144/15.7	.127/15.3	.100/15.0	.074/16.5	.049/16.5	.025/16.5	.000/16.5
10	7	.000/13.7	.006/13.4	.013/12.1	.030/11.6	.059/10.1	.164/8.3	.400/6.5	.228/6.7	.085/7.7	.046/5.7	.028/5.7	.013/6.3	.000/6.3
9	9	.000/15.3	.010/15.0	.024/14.3	.051/13.1	.107/11.2	.200/9.8	.352/7.5	.246/7.9	.125/8.5	.065/9.0	.035/9.2	.016/9.2	.000/9.2
11	11	.000/16.1	.015/16.1	.035/15.3	.066/14.3	.121/12.1	.200/10.5	.301/9.8	.234/8.7	.142/10.5	.084/11.2	.047/11.2	.021/11.2	.000/11.2
13	13	.000/17.0	.018/17.0	.040/16.1	.072/15.3	.121/13.4	.166/11.6	.256/10.5	.212/11.2	.144/11.6	.093/11.6	.056/11.6	.028/12.6	.000/12.6
15	15	.000/18.5	.019/18.0	.042/17.5	.073/16.5	.115/14.6	.167/13.4	.220/11.6	.189/12.1	.138/12.1	.094/12.8	.059/12.8	.028/12.8	.000/12.8
17	17	.000/19.6	.019/19.6	.041/18.0	.069/17.0	.106/15.7	.149/14.6	.190/14.0	.167/13.4	.128/13.1	.091/14.6	.058/14.6	.029/14.6	.000/14.6
19	19	.000/19.6	.019/19.6	.039/19.0	.065/18.5	.096/17.5	.132/15.0	.164/14.0	.148/15.0	.116/15.0	.085/14.6	.056/14.6	.028/14.6	.000/14.6
21	21	.000/21.7	.017/20.3	.037/19.0	.059/18.5	.087/17.5	.117/16.5	.144/15.7	.131/15.3	.105/15.0	.078/16.5	.052/16.5	.026/16.5	.000/16.5
15	7	.000/20.3	.005/19.6	.012/17.5	.026/14.3	.053/11.6	.161/9.0	.398/6.5	.240/6.7	.090/7.7	.047/5.7	.028/5.7	.013/6.3	.000/6.3
9	9	.000/20.3	.009/19.6	.021/17.5	.044/15.0	.095/12.6	.196/10.1	.352/7.5	.259/8.1	.135/8.5	.071/9.0	.038/9.2	.017/9.2	.000/9.2
11	11	.000/20.3	.013/19.6	.030/17.5	.058/15.7	.104/13.7	.195/10.8	.301/9.8	.244/9.0	.152/9.5	.091/10.1	.051/10.1	.023/10.1	.000/10.1
13	13	.000/20.9	.015/19.6	.034/19.0	.063/17.0	.111/14.6	.180/12.1	.257/10.5	.220/10.8	.152/11.6	.100/11.6	.059/12.6	.028/12.6	.000/12.6
15	15	.000/20.9	.016/20.3	.036/19.5	.064/17.5	.105/15.7	.162/14.0	.220/11.6	.195/12.1	.145/13.1	.100/12.8	.062/12.8	.030/12.8	.000/12.8
17	17	.000/21.7	.016/21.7	.036/20.3	.062/18.5	.099/17.0	.144/15.3	.190/14.0	.173/13.4	.133/13.4	.096/14.6	.062/14.6	.030/14.6	.000/14.6
19	19	.000/22.4	.016/22.4	.034/21.7	.058/20.3	.089/17.0	.128/15.3	.164/14.0	.152/15.0	.121/15.0	.090/14.6	.059/14.6	.029/14.6	.000/14.6
21	21	.000/23.3	.015/22.4	.032/21.7	.053/20.3	.081/18.5	.113/17.0	.144/15.7	.135/15.3	.110/15.0	.083/16.5	.055/16.5	.028/16.5	.000/16.5
20	7	.000/37.0	.004/34.9	.010/26.2	.023/19.0	.056/13.4	.160/9.5	.397/6.5	.252/6.7	.095/7.7	.046/5.7	.028/5.7	.013/6.3	.000/6.3
9	9	.000/27.3	.007/26.2	.018/23.3	.034/19.0	.084/14.0	.192/10.5	.351/7.9	.270/8.1	.144/8.5	.075/9.0	.040/9.2	.018/9.2	.000/9.2
11	11	.000/27.3	.010/26.2	.025/23.3	.050/19.0	.094/15.0	.190/11.6	.301/9.5	.254/9.0	.161/9.5	.097/10.1	.054/10.1	.024/10.1	.000/10.1
13	13	.000/27.3	.013/26.2	.029/23.3	.056/19.0	.100/16.1	.175/12.6	.257/10.5	.228/10.8	.160/11.6	.105/11.6	.063/12.6	.029/12.6	.000/12.6
15	15	.000/27.3	.014/26.2	.031/23.3	.056/19.0	.096/17.0	.157/14.3	.220/11.6	.202/12.1	.151/13.1	.105/12.8	.066/12.8	.031/12.8	.000/12.8
17	17	.000/27.3	.014/26.2	.031/23.3	.055/19.0	.090/14.0	.140/14.6	.190/12.6	.178/13.4	.139/13.4	.101/14.6	.065/14.6	.031/14.6	.000/14.6
19	19	.000/27.3	.014/26.2	.030/23.3	.052/20.9	.082/18.5	.124/16.1	.164/14.0	.156/15.0	.126/15.0	.094/14.6	.062/14.6	.030/14.6	.000/14.6
21	21	.000/27.3	.014/26.2	.029/23.3	.048/22.4	.075/19.6	.110/17.5	.143/15.7	.138/15.3	.114/15.0	.086/16.5	.057/16.5	.029/16.5	.000/16.5
25	7	.000/78.5	.004/8.5	.009/39.3	.014/25.1	.051/16.5	.160/10.1	.395/6.5	.262/6.5	.099/7.5	.046/8.1	.027/6.3	.013/6.3	.000/6.3
9	9	.000/41.9	.006/37.0	.015/31.4	.033/24.2	.076/16.5	.187/10.8	.351/7.9	.262/8.1	.152/8.5	.079/9.0	.041/9.2	.018/9.2	.000/9.2
11	11	.000/34.9	.010/33.1	.023/29.9	.043/24.2	.089/16.5	.183/12.1	.302/9.5	.262/9.0	.170/9.5	.103/10.1	.058/10.1	.026/10.1	.000/10.1
13	13	.000/33.1	.012/33.1	.028/29.9	.050/24.2	.092/16.5	.169/13.1	.257/10.5	.235/10.8	.169/10.8	.111/11.2	.066/11.2	.031/11.2	.000/11.2
15	15	.000/33.1	.014/33.1	.030/29.9	.051/24.2	.089/16.5	.152/14.3	.220/11.6	.207/12.1	.157/13.1	.110/12.8	.069/12.8	.033/12.8	.000/12.8
17	17	.000/33.1	.014/33.1	.030/29.9	.050/24.2	.083/16.5	.135/15.3	.190/12.6	.182/13.4	.140/13.4	.105/14.6	.067/14.6	.033/14.6	.000/14.6
19	19	.000/33.1	.014/33.1	.029/29.9	.048/24.2	.077/16.5	.120/16.5	.164/14.0	.160/15.0	.130/15.0	.097/14.6	.064/14.6	.032/14.6	.000/14.6
21	21	.000/33.1	.013/33.1	.028/29.9	.045/24.2	.070/16.5	.106/14.0	.143/15.7	.141/15.3	.117/15.0	.089/16.5	.060/16.5	.030/16.5	.000/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26														
LONGCRESTED														
PMG VER DISP IN FEET/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS														
OE														
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM BL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	016/9.5	017/9.5	021/11.2	033/10.5	065/9.2	145/7.9	239/6.7	201/6.3	109/6.7	063/7.3	048/5.7	042/5.7	040/5.7
9	9	047/13.4	050/13.1	061/12.6	084/11.6	125/10.8	192/9.5	257/8.7	231/8.5	159/9.0	110/9.0	084/9.2	072/9.2	068/9.8
11	11	092/14.6	096/14.3	109/14.0	133/13.7	169/12.6	213/11.6	260/11.2	247/10.8	191/10.9	150/11.2	125/11.2	111/11.2	107/11.2
13	13	131/15.7	135/15.7	147/15.7	168/15.0	197/14.6	232/13.1	269/12.6	247/12.6	211/13.1	181/12.8	159/12.6	147/12.6	143/12.6
15	15	162/17.5	166/17.5	176/17.0	193/17.0	215/16.5	241/16.1	259/15.7	250/15.0	225/15.0	202/14.6	185/14.3	175/14.3	172/14.3
17	17	183/19.6	186/19.6	195/19.0	208/19.0	226/18.5	244/18.0	257/18.0	251/17.5	233/17.0	216/16.5	202/16.5	194/16.5	191/16.5
19	19	199/20.3	201/20.3	208/19.6	219/19.6	232/19.0	247/18.5	256/18.0	251/17.5	238/17.5	225/17.0	215/17.0	208/19.0	206/19.0
21	21	212/22.4	213/22.4	219/22.4	227/22.4	238/21.7	249/20.9	256/20.9	252/20.3	243/20.3	233/19.6	224/19.6	219/19.6	217/19.6
10	7	014/13.4	015/12.8	019/13.7	031/12.1	063/10.5	144/8.5	238/6.7	213/6.5	129/6.7	075/7.3	051/7.5	042/7.7	040/7.7
9	9	045/16.1	048/15.7	059/14.6	082/13.4	122/12.1	189/10.1	256/8.7	243/8.3	184/8.3	133/8.5	102/8.7	087/8.7	083/8.7
11	11	089/17.0	093/17.0	106/16.1	130/14.6	166/13.4	215/12.1	259/11.2	252/10.8	209/10.5	170/10.5	143/11.2	128/11.2	123/10.8
13	13	124/18.5	132/18.0	144/17.5	165/16.5	194/14.6	230/13.7	259/12.6	253/12.6	224/13.1	194/12.8	173/12.6	160/12.6	156/12.6
15	15	159/19.6	162/19.6	172/19.0	190/18.5	212/17.5	236/16.5	258/15.7	255/15.3	234/15.0	212/14.6	195/14.3	185/14.3	181/14.3
17	17	180/21.7	183/21.7	191/20.9	205/20.3	223/19.6	242/18.5	257/18.0	254/17.5	239/17.0	223/16.5	210/16.5	202/16.5	199/16.5
19	19	196/22.4	198/22.4	205/21.7	216/20.9	230/19.6	247/19.0	255/18.0	254/17.5	243/17.5	230/17.0	220/17.0	214/19.0	212/19.0
21	21	209/25.1	211/24.2	216/24.2	225/23.3	236/22.4	247/21.7	255/20.9	254/20.3	246/20.3	237/19.6	229/19.6	224/19.6	222/19.6
15	7	013/21.7	014/20.9	018/17.5	030/14.6	062/11.6	140/9.0	238/6.7	220/6.5	143/7.1	087/7.5	057/7.7	044/7.9	040/7.9
9	9	043/20.3	046/19.6	057/17.5	080/15.3	121/13.1	185/10.8	256/8.7	257/7.9	208/7.7	160/8.1	127/8.3	109/8.5	104/8.5
11	11	085/20.3	090/19.6	103/18.5	127/16.5	164/14.6	212/12.8	259/11.2	262/10.1	230/10.5	196/10.1	169/10.1	154/10.1	149/10.1
13	13	124/20.9	128/20.9	140/19.6	162/18.5	192/15.7	227/14.0	258/12.6	261/12.6	239/13.1	214/12.8	194/12.6	181/12.6	177/12.6
15	15	155/22.4	158/22.4	169/21.7	186/20.3	210/18.5	236/17.0	258/15.7	260/15.3	245/15.0	226/14.6	210/14.3	201/14.3	197/14.3
17	17	176/23.3	179/23.3	188/23.3	206/21.7	221/20.3	241/17.5	256/18.0	258/17.5	247/17.0	233/16.5	221/16.5	213/16.5	211/16.5
19	19	192/25.1	195/24.2	202/24.2	213/22.4	228/20.9	243/19.6	255/18.0	256/17.5	248/17.5	238/17.0	229/17.0	223/19.0	221/19.0
21	21	206/27.3	208/27.3	213/26.2	222/25.1	234/23.3	246/22.4	255/20.9	256/20.3	250/20.3	242/19.6	235/19.6	230/19.6	229/19.6
20	7	013/28.6	013/27.3	016/23.3	028/19.0	061/13.7	137/9.5	237/6.7	224/7.0	149/7.1	092/7.7	060/8.1	045/8.1	041/8.3
9	9	040/27.3	043/26.2	054/23.3	077/19.0	119/14.6	182/11.2	256/8.7	267/7.5	208/7.7	183/8.3	150/8.5	130/8.7	124/8.7
11	11	082/27.3	086/26.2	099/23.3	123/19.0	161/16.1	216/14.0	259/11.2	271/10.1	250/9.5	222/9.2	198/9.2	183/9.2	178/9.2
13	13	120/27.3	124/26.2	136/23.3	157/19.6	189/17.0	225/14.6	259/12.6	268/12.6	255/13.1	236/11.6	219/11.6	208/11.2	205/11.2
15	15	151/27.3	154/26.2	164/23.3	182/20.9	207/18.5	235/16.1	258/15.7	265/15.3	256/15.0	242/14.6	230/14.3	222/14.3	219/14.3
17	17	173/27.3	175/26.2	184/23.3	198/22.4	218/20.3	237/18.0	257/18.0	262/17.5	256/17.0	245/16.5	236/16.5	230/16.5	228/16.5
19	19	190/27.3	192/26.2	199/26.2	210/24.2	226/22.4	242/19.6	255/18.0	259/17.5	255/17.5	247/17.0	240/17.0	235/19.0	233/19.0
21	21	204/28.6	205/29.9	211/28.6	220/26.2	232/25.1	245/25.4	255/20.9	258/20.3	255/20.3	249/19.6	244/19.6	240/19.6	239/19.6
25	7	014/52.4	014/48.3	018/34.9	025/24.2	059/16.5	134/10.5	237/6.7	224/7.0	148/7.7	089/7.9	057/8.3	042/8.3	038/8.3
9	9	040/39.3	043/37.0	052/29.9	073/24.2	116/16.5	181/12.1	256/8.7	275/7.5	241/7.9	198/8.3	164/8.7	143/9.0	136/9.0
11	11	080/33.1	084/33.1	096/29.9	118/24.2	158/16.5	209/14.0	259/11.2	280/10.1	268/8.3	245/8.7	223/9.2	208/9.2	203/9.2
13	13	118/33.1	122/33.1	133/29.9	153/24.2	185/16.5	224/15.3	259/12.6	275/12.6	270/11.6	257/11.2	244/10.5	235/10.1	231/10.8
15	15	149/33.1	152/33.1	162/29.9	178/24.2	205/19.6	237/16.5	259/15.7	270/15.3	268/15.0	260/14.6	251/14.3	245/14.3	242/14.0
17	17	171/33.1	174/33.1	182/29.9	195/24.2	216/21.7	238/18.5	257/18.0	266/17.5	264/17.0	259/16.5	253/16.5	248/16.5	246/16.5
19	19	188/33.1	190/33.1	197/29.9	208/26.2	224/23.3	241/20.3	255/20.9	262/17.5	258/17.0	258/17.0	254/17.0	248/19.0	246/19.0
21	21	202/33.1	204/33.1	209/29.9	218/26.2	230/26.2	244/23.3	255/20.9	261/20.3	260/20.3	257/19.6	254/19.6	251/19.6	250/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

DLG 26

LONGCRESTED
RMS VEH VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.010/9.5	.011/9.5	.014/8.7	.022/10.1	.046/9.2	.119/7.5	.233/6.3	.197/6.3	.101/6.5	.060/6.8	.048/5.7	.043/5.7	.041/5.7	
	9	.023/13.4	.025/12.6	.032/12.1	.046/11.6	.076/10.5	.137/9.0	.216/7.3	.196/7.0	.127/8.1	.085/8.5	.066/9.0	.057/9.0	.055/9.0	
	11	.041/14.3	.043/14.3	.051/13.1	.065/12.8	.091/11.6	.136/10.8	.189/9.2	.178/9.2	.131/9.5	.099/10.1	.081/10.1	.072/10.1	.069/10.8	
	13	.053/15.7	.056/15.7	.063/14.3	.076/14.0	.096/13.4	.128/12.1	.165/11.6	.158/11.2	.120/11.6	.104/11.6	.090/11.6	.082/12.6	.079/12.1	
	15	.061/17.5	.063/16.1	.069/15.7	.080/15.3	.096/14.6	.119/14.3	.145/12.6	.142/13.4	.120/13.1	.104/12.8	.093/12.8	.087/12.6	.085/12.6	
	17	.068/17.5	.069/17.5	.071/17.5	.080/17.0	.092/16.5	.110/16.1	.130/14.0	.127/15.0	.114/15.0	.100/14.6	.092/14.3	.084/14.3	.081/14.3	
	19	.065/19.6	.067/19.6	.071/19.6	.078/19.6	.088/19.5	.102/18.1	.116/15.7	.115/15.3	.104/17.0	.096/16.5	.090/16.5	.086/16.5	.084/16.5	
	21	.065/20.3	.066/19.6	.070/19.6	.075/19.0	.083/19.0	.094/18.5	.106/18.0	.105/17.5	.097/17.0	.091/17.0	.086/16.5	.084/16.5	.083/16.5	
	10	7	.006/13.4	.007/12.8	.009/11.6	.016/12.1	.038/10.1	.112/8.1	.232/6.3	.217/6.3	.129/6.7	.075/6.8	.053/7.3	.046/5.7	.044/5.7
9		.018/15.7	.020/15.3	.026/14.3	.034/13.1	.066/11.6	.127/9.5	.215/7.3	.218/6.5	.161/7.1	.115/7.7	.088/8.1	.076/8.3	.073/8.3	
11		.033/17.0	.035/16.5	.042/15.3	.057/14.3	.082/12.6	.127/11.2	.188/9.2	.195/8.7	.160/9.2	.127/9.5	.106/10.1	.095/9.8	.091/9.8	
13		.045/18.0	.047/18.0	.053/16.5	.066/15.3	.087/14.3	.113/14.6	.164/11.6	.172/11.2	.149/11.6	.127/11.2	.111/11.2	.103/11.2	.100/11.2	
15		.052/18.5	.054/18.5	.060/18.0	.071/17.0	.089/15.7	.113/14.6	.145/12.6	.152/13.4	.137/13.1	.122/12.8	.111/12.8	.105/12.6	.103/12.6	
17		.056/20.3	.057/19.6	.062/19.0	.071/18.5	.085/17.5	.105/16.5	.129/14.0	.136/15.0	.126/15.0	.115/14.6	.108/14.3	.103/14.3	.101/14.3	
19		.057/21.7	.058/21.7	.063/20.9	.070/20.3	.082/19.6	.097/17.0	.116/15.7	.122/15.3	.116/15.0	.108/16.5	.103/16.5	.099/16.5	.098/16.5	
21		.057/22.4	.058/22.4	.062/21.7	.068/20.3	.078/19.6	.090/19.0	.105/18.0	.111/17.5	.106/17.0	.101/17.0	.097/16.5	.095/16.5	.094/16.5	
15		7	.004/21.7	.004/20.3	.006/17.5	.013/14.6	.033/11.6	.102/8.5	.231/6.3	.231/6.3	.151/7.0	.092/7.3	.061/7.5	.048/7.7	.045/7.9
	9	.013/20.3	.015/19.6	.020/17.5	.032/15.3	.059/12.8	.117/10.1	.215/7.3	.238/6.7	.196/7.1	.150/7.7	.119/8.1	.103/8.3	.098/8.3	
	11	.026/20.3	.028/19.6	.034/18.5	.048/16.5	.073/13.7	.118/11.6	.188/9.2	.213/7.0	.191/7.7	.163/8.1	.141/8.7	.128/8.7	.124/9.0	
	13	.036/20.9	.038/20.3	.044/19.0	.057/17.5	.079/15.7	.114/12.8	.164/11.6	.186/10.8	.175/10.5	.157/10.5	.142/10.1	.133/10.1	.130/10.1	
	15	.043/21.7	.045/21.7	.051/20.3	.062/18.5	.080/17.0	.107/15.0	.145/12.6	.163/13.4	.157/13.1	.146/12.8	.137/12.6	.131/12.6	.128/12.6	
	17	.047/23.3	.048/22.4	.054/21.7	.063/20.3	.078/18.5	.100/17.0	.129/14.0	.144/15.0	.142/15.0	.135/14.6	.128/14.3	.124/14.3	.123/14.3	
	19	.049/24.2	.050/24.2	.055/23.3	.063/21.7	.075/20.3	.093/17.5	.116/15.7	.129/15.3	.128/15.0	.124/16.5	.120/16.5	.117/16.5	.116/16.1	
	21	.050/25.1	.051/25.1	.055/24.2	.062/22.4	.072/20.9	.087/19.6	.105/18.0	.116/17.5	.117/17.0	.114/17.0	.112/16.5	.110/16.5	.109/16.5	
	20	7	.004/28.6	.003/27.3	.004/23.3	.009/19.0	.028/13.4	.091/9.2	.231/6.3	.241/6.5	.165/7.1	.102/7.7	.068/7.9	.052/8.1	.047/8.1
9		.009/27.3	.010/26.2	.014/23.3	.025/19.0	.051/14.3	.108/10.8	.215/7.3	.256/7.0	.226/7.7	.184/7.9	.151/8.3	.132/8.3	.126/8.5	
11		.019/27.3	.021/26.2	.027/23.3	.039/19.0	.064/15.3	.110/12.1	.188/9.2	.227/7.0	.227/7.7	.201/8.3	.181/8.5	.168/8.7	.164/8.7	
13		.028/27.3	.030/26.2	.036/23.3	.048/19.0	.070/17.0	.107/13.4	.164/11.6	.199/10.1	.201/7.9	.190/8.3	.179/8.7	.172/9.0	.169/9.0	
15		.035/27.3	.036/26.2	.042/23.3	.053/20.9	.072/18.0	.102/15.7	.145/12.6	.179/12.1	.174/11.6	.168/10.1	.154/10.1	.146/10.1	.142/10.1	
17		.039/27.3	.040/26.2	.046/23.3	.056/22.4	.071/19.6	.095/17.5	.129/14.0	.159/14.6	.157/14.6	.154/14.3	.142/14.3	.135/14.3	.131/14.3	
19		.041/27.3	.043/26.2	.047/23.3	.056/24.2	.069/21.7	.094/18.0	.116/15.7	.136/15.3	.142/15.0	.141/16.5	.140/16.5	.139/16.1	.137/16.1	
21		.043/27.3	.044/26.2	.048/26.2	.056/24.2	.067/22.4	.093/19.6	.105/18.0	.122/17.5	.128/17.0	.130/17.0	.129/16.5	.129/16.5	.128/16.5	
25		7	.004/7.3	.004/6.9	.004/34.9	.006/24.2	.022/16.5	.082/10.1	.231/6.3	.248/7.0	.169/7.5	.104/7.9	.068/8.1	.051/8.3	.046/8.3
	9	.006/37.0	.007/34.9	.010/28.9	.019/24.2	.043/16.5	.099/11.6	.215/7.3	.271/7.0	.249/7.7	.209/8.3	.175/8.5	.154/8.7	.147/8.7	
	11	.014/33.1	.015/33.1	.020/28.9	.031/24.2	.056/16.5	.103/12.6	.188/9.2	.244/7.3	.249/7.9	.235/8.5	.218/8.7	.205/9.0	.200/9.0	
	13	.021/33.1	.023/33.1	.028/28.9	.040/24.2	.062/16.5	.104/11.6	.164/11.6	.212/7.5	.225/8.3	.223/8.7	.217/9.0	.210/9.2	.204/9.2	
	15	.027/33.1	.029/33.1	.035/28.9	.045/24.2	.065/16.5	.097/16.1	.145/12.6	.184/12.6	.199/8.3	.202/8.7	.201/9.2	.198/9.2	.197/9.2	
	17	.032/33.1	.033/33.1	.038/28.9	.048/24.2	.065/20.9	.091/14.0	.129/14.0	.163/13.7	.176/14.6	.181/9.2	.182/9.2	.181/9.2	.181/9.2	
	19	.034/33.1	.036/33.1	.041/29.9	.049/24.2	.064/21.7	.095/18.5	.116/15.7	.143/15.3	.156/15.0	.162/14.6	.164/14.6	.165/16.1	.165/16.1	
	21	.036/33.1	.038/33.1	.042/29.9	.050/26.2	.062/23.3	.080/20.3	.105/18.0	.128/17.5	.140/17.0	.146/17.0	.149/16.5	.150/16.5	.150/16.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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LONGCRESTED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
(ACC. X 100)
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM RL

VT	SHIP HEADING ANGLE IN DEGREES													
	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	0.22/9.5	0.024/9.5	0.030/8.7	0.048/10.1	0.104/8.7	0.315/7.1	0.748/6.3	0.627/5.7	0.305/6.3	0.192/5.2	0.158/5.7	0.142/5.7	0.137/5.7
	9	0.37/12.6	0.041/12.6	0.053/12.1	0.082/12.6	0.149/9.8	0.328/8.3	0.621/6.3	0.563/6.3	0.335/6.7	0.223/7.9	0.178/5.7	0.153/5.7	0.153/5.7
	11	0.58/13.4	0.062/13.4	0.076/13.1	0.104/12.6	0.162/11.2	0.288/9.0	0.492/6.3	0.461/6.3	0.308/8.7	0.223/9.2	0.182/9.2	0.163/9.8	0.157/9.8
	13	0.70/14.6	0.074/14.3	0.086/14.3	0.111/12.8	0.156/12.1	0.248/10.8	0.392/6.7	0.374/6.3	0.270/9.5	0.208/10.5	0.176/11.2	0.160/11.2	0.155/11.2
	15	0.75/15.7	0.078/15.7	0.089/15.3	0.109/14.0	0.144/13.4	0.212/11.6	0.317/7.0	0.307/6.3	0.233/10.8	0.188/11.6	0.164/11.6	0.152/12.6	0.148/12.6
	17	0.75/17.5	0.077/17.5	0.086/15.7	0.102/15.3	0.130/13.7	0.182/12.8	0.262/11.6	0.255/12.1	0.201/12.1	0.168/12.8	0.150/12.6	0.141/12.6	0.137/12.6
	19	0.69/19.6	0.074/17.5	0.081/17.5	0.094/17.0	0.116/15.0	0.157/14.3	0.220/12.6	0.215/12.1	0.174/13.1	0.149/13.1	0.136/14.3	0.128/14.3	0.126/14.3
10	7	0.09/13.4	0.010/12.8	0.014/11.6	0.027/12.1	0.074/10.1	0.282/7.7	0.743/6.3	0.715/6.3	0.414/6.7	0.243/6.8	0.183/7.1	0.163/5.7	0.158/5.7
	9	0.23/15.3	0.025/15.0	0.035/14.3	0.058/13.1	0.115/11.2	0.284/8.7	0.618/6.3	0.594/6.3	0.468/6.7	0.325/7.3	0.254/7.7	0.217/7.9	0.217/7.9
	11	0.39/16.1	0.042/16.1	0.053/15.3	0.078/14.3	0.130/12.1	0.255/9.8	0.490/6.5	0.461/6.3	0.418/7.0	0.322/7.7	0.266/8.3	0.233/8.7	0.233/8.7
	13	0.49/17.0	0.052/17.0	0.063/16.1	0.086/15.3	0.129/13.4	0.221/11.2	0.390/6.7	0.351/6.5	0.356/7.1	0.291/9.0	0.251/10.1	0.213/10.1	0.213/10.1
	15	0.54/18.5	0.057/18.0	0.067/17.5	0.086/15.7	0.120/14.3	0.190/12.1	0.317/7.0	0.311/6.5	0.301/7.1	0.255/10.5	0.227/11.2	0.208/11.2	0.208/11.2
	17	0.55/19.6	0.059/19.6	0.066/19.0	0.082/17.0	0.110/15.7	0.164/13.4	0.261/11.6	0.290/6.5	0.255/11.6	0.222/12.8	0.202/12.6	0.188/12.6	0.188/12.6
	19	0.54/20.3	0.056/19.6	0.063/19.0	0.076/18.5	0.099/15.1	0.143/14.6	0.219/12.6	0.243/6.5	0.218/13.1	0.194/12.8	0.179/12.8	0.171/14.3	0.169/14.3
15	7	0.03/21.7	0.004/21.7	0.007/20.9	0.017/18.5	0.089/17.5	0.125/15.0	0.186/14.0	0.207/6.5	0.186/13.4	0.169/14.6	0.158/14.3	0.153/14.3	0.151/14.3
	9	0.03/21.7	0.004/20.3	0.007/17.5	0.017/14.6	0.055/11.6	0.238/8.3	0.740/5.7	0.785/6.3	0.511/6.7	0.313/7.3	0.213/7.5	0.174/7.7	0.164/7.7
	11	0.03/20.3	0.015/19.6	0.022/17.5	0.040/15.3	0.090/12.6	0.243/9.2	0.614/5.3	0.588/6.5	0.603/7.1	0.400/7.5	0.366/7.9	0.318/8.1	0.303/8.1
	13	0.024/20.3	0.027/19.6	0.036/18.0	0.057/16.1	0.104/13.4	0.222/10.8	0.388/6.5	0.368/6.5	0.542/7.1	0.356/7.7	0.333/8.1	0.346/8.3	0.346/8.3
	15	0.033/20.9	0.035/20.3	0.044/19.0	0.064/17.0	0.105/14.6	0.195/11.6	0.390/6.7	0.367/6.5	0.451/7.1	0.404/7.7	0.363/8.1	0.340/8.5	0.332/8.7
	17	0.037/21.7	0.040/20.9	0.048/20.3	0.066/17.5	0.099/15.7	0.170/12.8	0.316/7.0	0.395/6.5	0.381/7.1	0.368/7.7	0.321/8.5	0.305/8.7	0.300/9.0
	19	0.039/22.4	0.042/22.4	0.049/20.3	0.064/18.5	0.092/17.0	0.147/14.0	0.261/11.6	0.326/6.7	0.319/7.1	0.297/7.9	0.279/8.7	0.268/9.2	0.265/9.2
20	7	0.04/23.3	0.042/22.4	0.048/21.7	0.061/20.3	0.084/17.0	0.129/15.3	0.219/12.6	0.272/6.7	0.269/7.1	0.255/7.9	0.242/8.7	0.235/12.6	0.235/12.6
	9	0.039/24.2	0.041/24.2	0.046/23.3	0.057/20.3	0.076/18.5	0.113/15.7	0.186/14.0	0.230/6.7	0.230/7.1	0.220/7.9	0.211/14.3	0.206/14.3	0.204/14.3
	11	0.011/6.8	0.007/27.3	0.004/23.3	0.009/19.0	0.039/13.4	0.195/9.0	0.738/5.7	0.841/6.5	0.580/7.1	0.364/7.5	0.247/7.9	0.195/7.9	0.180/7.9
	13	0.009/27.3	0.009/26.2	0.012/23.3	0.026/19.0	0.068/14.3	0.206/10.1	0.615/6.3	0.816/6.7	0.730/7.1	0.596/7.7	0.494/8.1	0.434/8.3	0.414/8.3
	15	0.015/27.3	0.016/26.2	0.022/23.3	0.039/19.0	0.081/15.0	0.192/11.6	0.488/6.5	0.674/7.0	0.668/7.7	0.604/7.9	0.547/8.3	0.509/8.5	0.496/8.5
	17	0.021/27.3	0.022/26.2	0.030/23.3	0.046/19.0	0.084/16.1	0.171/12.8	0.389/6.7	0.543/7.0	0.561/7.7	0.535/8.1	0.505/8.5	0.484/8.7	0.476/8.7
	19	0.025/27.3	0.027/26.2	0.034/23.3	0.049/20.3	0.081/17.0	0.151/13.4	0.316/7.0	0.440/7.0	0.463/7.7	0.456/8.1	0.440/8.5	0.429/8.7	0.425/8.7
25	7	0.027/27.3	0.029/26.2	0.036/23.3	0.049/20.9	0.076/18.0	0.132/14.6	0.261/11.6	0.361/7.0	0.381/7.7	0.366/8.1	0.378/8.5	0.372/8.7	0.370/8.7
	9	0.028/27.3	0.030/26.2	0.036/23.3	0.048/22.4	0.071/18.5	0.116/15.7	0.219/12.6	0.301/7.0	0.325/7.7	0.325/8.5	0.321/8.7	0.320/8.7	0.320/8.7
	11	0.028/27.3	0.030/26.2	0.035/23.3	0.046/22.4	0.065/19.6	0.103/17.5	0.186/14.0	0.254/7.0	0.271/7.7	0.281/8.1	0.280/8.5	0.278/8.7	0.278/8.7
	13	0.012/7.3	0.011/7.1	0.014/6.3	0.035/24.2	0.026/15.5	0.151/9.8	0.739/5.7	0.884/6.5	0.619/7.1	0.387/7.7	0.260/8.1	0.200/8.3	0.184/8.3
	15	0.008/37.0	0.008/34.9	0.011/29.9	0.015/24.2	0.049/16.5	0.174/11.2	0.615/6.3	0.886/7.0	0.838/7.7	0.711/8.1	0.602/8.7	0.532/8.7	0.509/8.7
	17	0.009/33.1	0.010/33.1	0.014/29.9	0.026/24.2	0.062/16.5	0.167/12.1	0.488/6.5	0.740/7.0	0.781/7.7	0.668/8.3	0.598/8.7	0.545/9.0	0.529/9.0
	19	0.012/33.1	0.014/33.1	0.019/29.9	0.032/24.2	0.066/15.5	0.151/13.1	0.390/7.0	0.597/7.0	0.662/7.9	0.627/8.3	0.636/9.0	0.629/9.0	0.629/9.0
	15	0.016/33.1	0.017/33.1	0.023/29.9	0.036/24.2	0.066/15.5	0.134/14.0	0.316/7.0	0.483/7.0	0.549/7.9	0.568/8.3	0.570/8.7	0.565/9.0	0.562/9.0
	17	0.018/33.1	0.020/33.1	0.025/29.9	0.037/24.2	0.063/15.5	0.119/15.3	0.261/11.6	0.396/7.0	0.458/7.7	0.479/8.3	0.487/8.7	0.488/9.0	0.487/9.0
	19	0.020/33.1	0.021/33.1	0.026/29.9	0.037/24.2	0.059/15.5	0.105/16.5	0.219/12.6	0.350/7.0	0.382/7.9	0.406/8.3	0.416/8.7	0.419/9.0	0.419/9.0
	21	0.021/33.1	0.022/33.1	0.027/29.9	0.036/24.2	0.055/15.5	0.093/18.0	0.186/14.0	0.278/7.0	0.324/7.9	0.346/8.3	0.357/8.7	0.362/9.0	0.362/9.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS LAT DLSH IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	.000/.95	.022/11.2	.049/10.8	.089/9.4	.151/8.7	.207/7.9	.279/7.9	.367/8.5	.461/9.1	.559/9.7	.657/10.3	.755/10.9	.853/11.5	.951/12.1	.049/12.7	.147/13.3
9	7	.000/12.6	.053/12.1	.109/12.1	.169/11.2	.224/10.5	.284/9.5	.349/8.7	.414/8.0	.479/7.3	.544/6.6	.609/5.9	.674/5.2	.739/4.5	.804/3.8	.869/3.1	.934/2.4
11	7	.000/13.4	.079/13.4	.155/13.1	.231/12.8	.307/12.4	.383/11.8	.459/11.1	.535/10.4	.611/9.7	.687/9.0	.763/8.3	.839/7.6	.915/6.9	.991/6.2	.067/5.5	.143/4.8
13	7	.000/14.6	.094/14.3	.176/14.3	.240/14.0	.312/13.6	.384/13.1	.456/12.5	.528/11.9	.600/11.2	.672/10.5	.744/9.8	.816/9.1	.888/8.4	.960/7.7	.032/7.0	.104/6.3
15	7	.000/15.7	.094/15.7	.186/15.7	.240/15.3	.312/14.9	.384/14.4	.456/13.8	.528/13.1	.600/12.4	.672/11.7	.744/11.0	.816/10.3	.888/9.6	.960/8.9	.032/8.2	.104/7.5
17	7	.000/17.5	.100/17.5	.185/17.0	.243/17.0	.312/16.5	.384/16.0	.456/15.4	.528/14.8	.600/14.1	.672/13.4	.744/12.7	.816/12.0	.888/11.3	.960/10.6	.032/9.9	.104/9.2
19	7	.000/19.6	.097/19.6	.181/19.6	.237/19.0	.307/18.5	.377/18.0	.447/17.4	.517/16.8	.587/16.1	.657/15.4	.727/14.7	.797/14.0	.867/13.3	.937/12.6	.032/11.9	.104/11.2
21	7	.000/19.6	.094/19.6	.175/19.6	.230/19.6	.292/19.6	.354/19.6	.416/19.6	.478/19.6	.540/19.6	.602/19.6	.664/19.6	.726/19.6	.788/19.6	.850/19.6	.912/19.6	.974/19.6
10	7	.000/13.4	.038/12.8	.072/13.1	.118/11.6	.181/9.5	.225/8.1	.271/7.9	.317/7.9	.363/7.9	.409/7.9	.455/7.9	.501/7.9	.547/7.9	.593/7.9	.639/7.9	.685/7.9
9	7	.000/15.0	.076/14.6	.152/14.0	.222/12.6	.294/11.2	.366/9.5	.438/7.9	.510/6.3	.582/4.7	.654/3.1	.726/1.5	.798/0.0	.870/0.0	.942/0.0	.014/0.0	.086/0.0
11	7	.000/16.1	.107/15.7	.205/14.6	.277/13.4	.349/12.0	.421/10.4	.493/8.8	.565/7.2	.637/5.6	.709/4.0	.781/2.4	.853/0.8	.925/0.0	.997/0.0	.069/0.0	.141/0.0
13	7	.000/17.0	.121/16.5	.227/15.3	.295/14.6	.363/13.7	.431/12.6	.499/11.5	.567/10.4	.635/9.3	.703/8.2	.771/7.1	.839/6.0	.907/4.9	.975/3.8	.043/3.1	.111/2.0
15	7	.000/17.5	.124/17.0	.229/16.5	.294/15.5	.363/14.5	.431/13.7	.499/12.6	.567/11.5	.635/10.4	.703/9.3	.771/8.2	.839/7.1	.907/6.0	.975/4.9	.043/3.8	.111/2.7
17	7	.000/18.5	.121/18.0	.223/17.5	.285/16.8	.347/15.8	.409/14.8	.471/13.7	.533/12.7	.595/11.6	.657/10.5	.719/9.4	.781/8.3	.843/7.2	.905/6.1	.043/5.0	.111/4.0
19	7	.000/19.6	.116/19.6	.213/19.0	.272/18.5	.331/17.5	.390/16.5	.449/15.4	.508/14.4	.567/13.3	.626/12.2	.685/11.1	.744/10.0	.803/8.9	.862/7.8	.043/6.9	.111/5.8
21	7	.000/21.7	.110/21.7	.202/20.9	.260/20.9	.318/20.9	.376/20.9	.434/20.9	.492/20.9	.550/20.9	.608/20.9	.666/20.9	.724/20.9	.782/20.9	.840/20.9	.898/20.9	.956/20.9
15	7	.000/7.3	.112/19.6	.160/17.5	.223/14.3	.230/11.2	.245/8.5	.257/5.8	.275/3.1	.285/0.0	.295/0.0	.305/0.0	.315/0.0	.325/0.0	.335/0.0	.345/0.0	.355/0.0
9	7	.000/20.3	.128/19.6	.229/17.5	.314/14.6	.326/12.1	.345/9.5	.361/6.8	.377/4.1	.393/1.5	.409/0.0	.425/0.0	.441/0.0	.457/0.0	.473/0.0	.489/0.0	.505/0.0
11	7	.000/20.3	.152/19.6	.278/17.5	.361/13.0	.356/10.4	.374/7.8	.390/5.1	.406/2.4	.422/0.0	.438/0.0	.454/0.0	.470/0.0	.486/0.0	.502/0.0	.518/0.0	.534/0.0
13	7	.000/20.3	.160/19.6	.291/17.5	.367/15.7	.354/13.0	.374/10.4	.390/7.8	.406/5.1	.422/2.4	.438/0.0	.454/0.0	.470/0.0	.486/0.0	.502/0.0	.518/0.0	.534/0.0
15	7	.000/20.3	.156/19.6	.283/17.5	.354/15.5	.345/12.0	.363/9.4	.379/6.8	.395/4.1	.411/1.5	.427/0.0	.443/0.0	.459/0.0	.475/0.0	.491/0.0	.507/0.0	.523/0.0
17	7	.000/20.3	.147/19.6	.267/17.5	.334/18.5	.330/15.5	.347/12.9	.363/10.3	.380/7.7	.396/5.1	.412/2.4	.428/0.0	.444/0.0	.460/0.0	.476/0.0	.492/0.0	.508/0.0
19	7	.000/20.3	.137/19.6	.250/19.0	.313/20.3	.315/20.3	.327/19.6	.343/17.0	.359/14.4	.375/11.8	.391/9.1	.407/6.5	.423/3.8	.439/1.2	.455/0.0	.471/0.0	.487/0.0
21	7	.000/20.3	.128/19.6	.234/20.3	.295/21.7	.302/20.9	.317/20.3	.332/19.6	.347/18.9	.362/18.2	.377/17.5	.392/16.8	.407/16.1	.422/15.4	.437/14.7	.452/14.0	.467/13.3
20	7	.000/19.6	.233/8.3	.405/7.5	.567/19.0	.322/13.4	.270/9.0	.210/5.0	.149/1.0	.088/0.0	.027/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
9	7	.000/19.6	.239/26.2	.402/23.3	.567/19.0	.322/13.4	.270/9.0	.210/5.0	.149/1.0	.088/0.0	.027/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
11	7	.000/19.6	.231/26.2	.402/23.3	.567/19.0	.322/13.4	.270/9.0	.210/5.0	.149/1.0	.088/0.0	.027/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
13	7	.000/19.6	.215/26.2	.380/23.3	.545/19.0	.300/13.4	.248/9.0	.187/4.6	.126/0.0	.065/0.0	.004/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
15	7	.000/19.6	.197/26.2	.351/23.3	.516/19.0	.284/13.4	.232/9.0	.171/4.6	.110/0.0	.049/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
17	7	.000/19.6	.180/26.2	.320/23.3	.485/19.0	.266/13.4	.214/9.0	.153/4.6	.092/0.0	.031/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
19	7	.000/19.6	.165/26.2	.293/23.3	.458/19.0	.250/13.4	.198/9.0	.137/4.6	.076/0.0	.015/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
21	7	.000/19.6	.152/26.2	.271/23.3	.436/19.0	.232/13.4	.180/9.0	.119/4.6	.058/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
25	7	.000/19.6	.236/9.8	.493/8.7	.650/19.0	.465/15.5	.298/9.5	.124/7.9	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
9	7	.000/19.6	.321/9.8	.577/37.0	.655/24.2	.545/15.5	.298/9.5	.124/7.9	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
11	7	.000/19.6	.326/37.0	.582/37.0	.655/24.2	.545/15.5	.298/9.5	.124/7.9	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
13	7	.000/19.6	.303/33.1	.508/29.9	.567/24.2	.498/16.5	.325/13.1	.179/11.6	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
15	7	.000/19.6	.273/33.1	.455/29.9	.509/24.2	.459/16.5	.315/13.1	.195/11.6	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
17	7	.000/19.6	.245/33.1	.407/29.9	.459/24.2	.422/16.5	.315/13.1	.195/11.6	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0	.000/0.0
19	7	.000/19.6	.220/33.1	.367/29.9	.417/24.2	.392/16.5	.301/20.3	.225/18.0	.180/17.5	.153/17.0	.120/16.5	.082/16.5	.043/16.5	.000/16.5	.000/16.5	.000/16.5	.000/16.5
21	7	.000/19.6	.200/33.1	.335/29.9	.364/24.2	.368/16.5	.295/23.3	.231/20.9	.191/20.3	.158/20.3	.122/19.6	.084/19.6	.042/19.6	.000/19.6	.000/19.6	.000/19.6	.000/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES													180
		0	15	30	45	60	75	90	105	120	135	150	165		
5	7	.000/9.5	.014/11.2	.032/10.5	.059/9.5	.110/8.7	.171/7.3	.257/7.3	.389/6.3	.533/6.7	.701/7.3	.936/7.5	.116/7.70.000/0.000		
	9	.000/12.1	.028/12.1	.060/11.6	.099/10.8	.146/9.2	.180/8.3	.215/8.5	.257/8.5	.294/8.3	.331/8.7	.367/8.7	.403/8.70.000/0.000		
	11	.000/13.4	.038/13.1	.077/12.6	.116/11.6	.150/11.2	.183/9.9	.215/9.0	.257/9.0	.294/8.7	.331/9.0	.367/9.0	.403/9.00.000/0.000		
	13	.000/14.3	.042/14.3	.082/13.1	.117/12.8	.148/12.1	.183/12.1	.215/12.6	.257/12.6	.294/12.1	.331/12.8	.367/12.8	.403/12.80.000/0.000		
	15	.000/14.6	.042/14.6	.080/14.3	.112/14.0	.140/13.4	.170/13.4	.201/14.0	.233/13.4	.264/13.4	.294/13.4	.324/13.4	.354/13.40.000/0.000		
	17	.000/15.7	.036/15.7	.075/15.3	.103/15.3	.135/15.3	.166/15.3	.197/15.3	.228/15.3	.258/15.3	.288/15.3	.318/15.3	.348/15.30.000/0.000		
	19	.000/16.1	.036/16.1	.069/15.7	.094/16.5	.127/16.5	.156/16.5	.186/16.5	.215/16.5	.245/16.5	.274/16.5	.304/16.5	.334/16.50.000/0.000		
10	7	.000/17.5	.033/17.5	.063/17.5	.086/17.0	.097/18.5	.097/18.5	.086/18.0	.092/17.5	.092/17.0	.079/16.5	.057/16.5	.030/16.10.000/0.000		
	9	.000/13.4	.016/12.8	.035/13.1	.065/11.6	.117/9.5	.181/7.9	.257/7.3	.389/6.3	.533/6.7	.701/7.3	.936/7.5	.116/7.70.000/0.000		
	11	.000/15.0	.032/14.6	.069/13.7	.111/12.6	.154/10.5	.183/8.7	.215/8.5	.257/8.5	.294/8.3	.331/8.7	.367/8.7	.403/8.70.000/0.000		
	13	.000/16.1	.046/15.7	.091/15.3	.129/14.3	.150/12.6	.183/12.6	.215/12.6	.257/12.6	.294/12.1	.331/12.8	.367/12.8	.403/12.80.000/0.000		
	15	.000/17.0	.045/16.5	.088/16.1	.121/14.6	.137/14.3	.166/14.3	.197/14.3	.228/14.3	.258/14.3	.288/14.3	.318/14.3	.348/14.30.000/0.000		
	17	.000/17.0	.042/17.0	.081/16.5	.111/15.3	.124/15.3	.149/15.3	.170/15.3	.197/15.3	.228/15.3	.258/15.3	.288/15.3	.318/15.30.000/0.000		
	19	.000/18.0	.039/18.0	.074/17.5	.100/18.5	.112/17.5	.137/17.5	.156/18.0	.186/18.0	.215/18.0	.245/18.0	.274/18.0	.304/18.00.000/0.000		
15	7	.000/18.5	.035/18.0	.067/17.5	.091/18.5	.122/18.0	.154/18.0	.186/18.0	.215/18.0	.245/18.0	.274/17.0	.304/16.50.000/0.000	.334/16.50.000/0.000		
	9	.000/20.3	.018/19.6	.042/17.5	.078/14.3	.127/11.2	.184/8.3	.257/7.3	.389/6.3	.533/6.7	.701/7.3	.936/7.5	.116/7.70.000/0.000		
	11	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/12.6	.164/9.5	.215/9.5	.350/9.5	.494/9.5	.638/9.5	.782/9.5	.926/9.50.000/0.000		
	13	.000/20.3	.049/19.6	.098/17.5	.140/15.3	.160/13.4	.180/12.8	.201/14.0	.222/13.4	.243/13.4	.264/13.4	.285/13.4	.306/13.40.000/0.000		
	15	.000/20.3	.047/19.6	.094/17.5	.129/15.3	.145/14.6	.161/14.0	.177/14.0	.193/14.0	.209/14.0	.225/14.0	.241/14.0	.257/14.00.000/0.000		
	17	.000/20.3	.043/19.6	.084/17.5	.117/16.5	.131/15.7	.142/15.7	.153/15.7	.164/15.7	.175/15.7	.186/15.7	.197/15.7	.208/15.70.000/0.000		
	19	.000/20.3	.039/19.6	.076/17.5	.105/17.5	.117/17.0	.130/17.0	.143/18.0	.156/18.0	.169/18.0	.182/18.0	.195/18.0	.208/18.00.000/0.000		
20	7	.000/20.3	.036/19.6	.069/17.5	.094/17.5	.106/13.5	.101/19.0	.087/18.0	.089/17.5	.086/17.0	.073/17.0	.052/16.5	.027/16.50.000/0.000		
	9	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	11	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	13	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	15	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	17	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	19	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
25	7	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	9	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	11	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	13	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	15	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	17	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		
	19	.000/20.3	.036/19.6	.069/17.5	.105/17.5	.117/17.0	.141/17.0	.166/17.0	.197/17.0	.228/17.0	.258/17.0	.288/17.0	.318/17.00.000/0.000		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.000/9.5	.031/9.0	.069/10.5	.129/9.2	.256/8.5	.491/7.0	.824/6.3	.644/5.7	.405/6.5	.211/6.8	.111/7.3	.050/5.20	.000/0.000	
9	9	.000/12.1	.047/11.6	.105/12.2	.186/10.5	.307/9.0	.472/7.9	.552/7.9	.540/6.5	.370/7.1	.273/7.7	.153/8.1	.070/8.30	.000/0.000	
11	11	.000/12.6	.059/12.5	.124/12.1	.200/11.2	.290/9.2	.375/8.3	.430/8.7	.428/8.7	.378/7.7	.266/8.3	.163/8.5	.077/8.70	.000/0.000	
13	13	.000/13.4	.080/13.4	.123/13.1	.189/11.6	.255/9.2	.307/9.0	.341/9.0	.342/7.0	.317/7.9	.237/8.5	.152/8.7	.074/9.00	.000/0.000	
15	15	.000/14.3	.087/14.3	.114/13.1	.169/12.6	.219/11.6	.253/8.7	.283/12.6	.270/7.5	.264/8.1	.205/8.7	.136/8.7	.067/9.00	.000/0.000	
17	17	.000/14.8	.082/14.3	.102/14.0	.146/12.8	.188/12.1	.212/8.7	.174/14.0	.230/7.5	.221/8.3	.176/8.7	.119/11.2	.060/12.10	.000/0.000	
19	19	.000/14.8	.046/14.6	.090/14.3	.130/13.7	.161/12.6	.179/8.7	.150/14.0	.193/13.4	.187/8.3	.151/11.6	.104/12.6	.052/12.60	.000/0.000	
21	21	.000/15.7	.040/15.7	.079/14.3	.113/14.0	.139/13.4	.154/14.6	.130/15.7	.165/15.0	.160/8.3	.130/12.8	.090/12.6	.046/12.60	.000/0.000	
10	7	.000/13.4	.023/12.8	.054/11.6	.111/11.6	.239/9.5	.469/7.5	.814/6.3	.663/5.7	.430/6.5	.225/6.8	.116/7.3	.052/7.50	.000/0.000	
9	9	.000/15.0	.043/14.6	.098/13.7	.176/12.1	.267/10.1	.431/8.1	.346/7.9	.556/6.5	.458/7.1	.298/7.7	.172/8.1	.079/8.30	.000/0.000	
11	11	.000/15.3	.055/15.0	.117/14.0	.192/12.8	.274/11.2	.359/8.5	.287/8.7	.442/7.0	.402/7.7	.291/8.3	.183/8.5	.088/8.70	.000/0.000	
13	13	.000/16.1	.056/15.7	.117/14.6	.182/13.4	.243/11.6	.294/8.7	.239/9.0	.352/7.1	.336/7.9	.258/8.5	.170/9.0	.084/9.00	.000/0.000	
15	15	.000/16.1	.053/15.7	.108/15.3	.163/13.7	.210/12.1	.244/8.7	.202/12.6	.285/7.1	.279/8.1	.221/9.0	.150/9.2	.075/9.20	.000/0.000	
17	17	.000/17.0	.048/16.1	.096/15.3	.143/14.3	.180/12.6	.205/8.7	.173/14.0	.236/7.5	.233/8.3	.188/9.0	.130/9.2	.066/9.80	.000/0.000	
19	19	.000/17.0	.042/16.5	.085/16.1	.125/14.3	.155/13.4	.174/14.6	.149/14.0	.198/13.7	.197/8.3	.161/9.0	.112/9.2	.057/9.80	.000/0.000	
21	21	.000/17.0	.037/17.0	.075/16.1	.109/14.6	.135/13.4	.154/15.0	.130/15.7	.169/15.3	.168/8.5	.139/9.2	.097/9.2	.050/9.80	.000/0.000	
15	7	.000/20.3	.017/19.6	.045/17.5	.105/14.3	.221/10.8	.441/8.1	.804/6.3	.676/5.7	.448/6.3	.235/6.8	.120/7.3	.053/7.50	.000/0.000	
9	9	.000/20.3	.036/19.6	.086/17.5	.165/14.3	.273/11.6	.406/8.5	.340/7.9	.568/6.5	.479/7.1	.316/7.9	.185/8.1	.085/8.30	.000/0.000	
11	11	.000/20.3	.046/19.6	.104/17.5	.180/14.6	.263/12.1	.340/9.0	.284/8.7	.451/7.0	.421/7.7	.311/8.3	.199/8.5	.096/8.70	.000/0.000	
13	13	.000/20.3	.048/19.6	.103/17.5	.170/15.0	.233/12.6	.281/9.0	.238/9.0	.359/7.5	.351/7.9	.274/8.5	.184/9.0	.091/9.20	.000/0.000	
15	15	.000/20.3	.045/19.6	.095/17.5	.152/15.3	.202/13.1	.234/9.0	.202/12.6	.291/7.5	.291/8.1	.234/9.0	.161/9.2	.081/9.80	.000/0.000	
17	17	.000/20.3	.041/19.6	.085/17.5	.133/15.3	.173/13.4	.174/12.8	.173/14.0	.240/7.5	.242/8.3	.199/9.0	.139/9.2	.071/10.10	.000/0.000	
19	19	.000/20.3	.036/19.6	.075/17.5	.116/15.7	.149/13.7	.168/14.0	.149/14.0	.202/13.7	.204/8.3	.170/9.2	.119/10.1	.061/10.10	.000/0.000	
21	21	.000/20.3	.032/19.6	.066/17.5	.101/15.7	.129/13.7	.145/15.3	.130/15.7	.172/15.3	.174/8.3	.148/9.2	.103/10.1	.053/10.10	.000/0.000	
20	7	.000/31.4	.013/29.9	.032/24.2	.084/19.0	.208/13.4	.414/8.7	.897/6.3	.688/5.7	.463/6.3	.243/6.8	.124/7.1	.054/7.30	.000/0.000	
9	9	.000/27.3	.024/26.2	.062/23.3	.138/19.0	.256/13.4	.381/9.0	.337/7.9	.579/6.3	.497/7.1	.324/7.7	.196/8.1	.090/8.30	.000/0.000	
11	11	.000/27.3	.031/26.2	.076/23.3	.152/19.0	.247/13.4	.321/9.2	.283/8.7	.460/7.3	.437/8.1	.328/8.5	.212/8.7	.103/9.00	.000/0.000	
13	13	.000/27.3	.032/26.2	.077/23.3	.145/19.0	.219/13.4	.287/9.5	.237/9.2	.366/7.5	.364/8.3	.289/9.2	.196/9.2	.087/9.20	.000/0.000	
15	15	.000/27.3	.031/26.2	.072/23.3	.130/19.0	.190/13.4	.244/9.5	.201/12.6	.297/7.5	.301/8.3	.247/9.0	.171/9.2	.087/9.80	.000/0.000	
17	17	.000/27.3	.029/26.2	.065/23.3	.115/19.0	.163/13.4	.184/13.4	.172/14.0	.244/7.9	.251/8.3	.209/9.2	.147/9.2	.076/10.10	.000/0.000	
19	19	.000/27.3	.026/26.2	.059/23.3	.100/19.0	.141/13.4	.162/14.6	.149/14.0	.205/13.7	.211/8.5	.177/9.2	.126/10.1	.065/10.10	.000/0.000	
21	21	.000/27.3	.024/26.2	.052/23.3	.088/19.0	.122/13.4	.139/16.1	.130/15.7	.174/15.3	.179/8.5	.152/9.2	.109/10.1	.057/10.10	.000/0.000	
25	7	.000/7.5	.015/7.3	.026/39.3	.056/26.2	.178/15.5	.390/9.2	.991/6.3	.694/5.7	.472/6.5	.253/6.8	.129/7.3	.057/7.50	.000/0.000	
9	9	.000/47.9	.019/34.9	.037/33.1	.092/24.2	.224/15.5	.334/9.5	.334/7.9	.585/6.3	.509/7.1	.346/7.5	.206/7.9	.095/8.10	.000/0.000	
11	11	.000/33.1	.022/33.1	.052/29.9	.105/24.2	.196/15.5	.301/9.8	.282/8.7	.466/7.5	.449/7.9	.341/8.5	.223/8.7	.109/9.00	.000/0.000	
13	13	.000/33.1	.022/33.1	.051/29.9	.097/24.2	.170/16.5	.213/12.6	.237/9.2	.371/7.9	.369/8.1	.256/9.2	.180/10.1	.093/10.10	.000/0.000	
15	15	.000/33.1	.022/33.1	.048/29.9	.088/24.2	.147/16.5	.181/14.0	.172/14.0	.247/7.5	.247/8.1	.217/9.5	.155/10.1	.081/10.10	.000/0.000	
17	17	.000/33.1	.021/33.1	.045/29.9	.076/24.2	.129/16.5	.156/15.0	.149/14.0	.207/13.4	.216/8.7	.184/9.5	.132/10.1	.069/10.10	.000/0.000	
21	21	.000/33.1	.019/33.1	.041/29.9	.070/24.2	.111/16.5	.134/16.5	.130/15.7	.176/15.3	.183/9.0	.157/9.5	.114/10.1	.060/10.10	.000/0.000	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

LONGCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM RL

VT	0	SHIP HEADING ANGLE IN DEGREES										160
		15	30	45	60	75	90	105	120	135	150	165
5	7	.097/10.8	.111/10.5	.153/9.8	.232/8.3	.329/7.0	.424/5.5	.521/6.7	.617/7.3	.717/7.3	.819/7.5	.918/7.7
	9	.178/12.1	.208/11.0	.246/10.8	.296/9.5	.352/8.5	.409/7.0	.466/8.1	.524/8.7	.581/8.3	.638/8.5	.694/8.7
	11	.253/13.4	.273/13.1	.310/13.7	.342/13.4	.372/13.8	.401/12.2	.429/10.1	.456/9.2	.483/9.2	.510/9.2	.537/9.8
	13	.292/14.6	.302/14.3	.340/15.3	.372/15.4	.401/15.7	.429/14.6	.456/13.7	.483/12.6	.510/12.6	.537/12.6	.564/12.6
	15	.308/15.7	.310/15.7	.348/16.5	.372/16.5	.401/16.5	.429/15.7	.456/14.6	.483/13.7	.510/13.7	.537/13.7	.564/13.7
	17	.310/17.5	.310/17.5	.348/18.0	.372/18.0	.401/18.0	.429/17.5	.456/16.5	.483/15.7	.510/15.7	.537/15.7	.564/15.7
	19	.306/19.6	.306/19.6	.344/20.9	.368/20.9	.397/20.9	.424/20.9	.451/20.9	.478/20.9	.505/20.9	.532/20.9	.559/20.9
	21	.302/22.4	.302/22.4	.340/23.3	.364/23.3	.393/23.3	.420/23.3	.447/23.3	.474/23.3	.501/23.3	.528/23.3	.555/23.3
10	7	.072/13.4	.094/12.8	.131/11.6	.199/9.5	.297/7.5	.416/6.5	.553/6.5	.729/7.0	.957/7.3	1.247/7.5	1.606/7.7
	9	.158/15.0	.165/14.6	.166/13.7	.204/12.8	.300/11.6	.429/10.1	.585/8.5	.781/8.3	1.027/8.3	1.284/8.5	1.551/8.7
	11	.236/16.1	.235/15.7	.230/15.0	.270/13.4	.400/11.6	.553/10.1	.739/9.2	1.027/9.5	1.324/9.5	1.621/9.8	1.918/10.1
	13	.289/17.0	.272/17.0	.240/16.1	.289/15.3	.400/13.4	.553/12.6	.739/12.1	1.027/12.6	1.324/12.6	1.621/12.6	1.918/12.6
	15	.287/18.0	.288/18.0	.291/17.5	.293/16.5	.297/15.0	.297/13.7	.297/12.6	.297/11.6	.297/10.6	.297/9.6	.297/8.6
	17	.292/19.6	.292/19.6	.292/19.0	.292/18.5	.292/17.0	.292/15.7	.292/14.6	.292/13.7	.292/12.6	.292/11.6	.292/10.6
	19	.291/21.7	.290/21.7	.288/20.9	.284/20.3	.275/19.6	.262/19.0	.249/18.0	.236/17.5	.223/17.0	.210/16.5	.197/16.5
	21	.288/22.4	.287/22.4	.280/23.3	.271/22.4	.260/21.7	.250/20.9	.239/20.3	.228/20.3	.217/20.3	.206/19.6	.195/19.0
15	7	.062/20.3	.066/19.6	.081/17.5	.116/14.3	.177/11.2	.265/8.3	.421/6.5	.611/7.1	.837/7.3	1.127/7.5	1.486/7.7
	9	.142/20.3	.149/19.6	.168/17.5	.202/14.6	.274/11.2	.421/9.8	.611/8.3	.837/8.1	1.127/8.3	1.486/8.5	1.845/8.7
	11	.210/20.3	.215/19.6	.229/17.5	.250/15.7	.271/13.1	.271/12.1	.271/10.1	.271/9.5	.271/8.5	.271/7.5	.271/6.5
	13	.250/20.3	.252/19.6	.260/17.5	.270/16.5	.274/15.0	.274/14.0	.274/13.0	.274/12.6	.274/12.6	.274/12.6	.274/12.6
	15	.269/20.3	.270/19.6	.273/19.0	.276/18.5	.276/17.0	.276/15.7	.276/14.6	.276/13.7	.276/12.6	.276/11.6	.276/10.6
	17	.275/20.3	.275/20.3	.276/20.3	.276/20.3	.276/20.3	.276/20.3	.276/20.3	.276/20.3	.276/20.3	.276/20.3	.276/20.3
	19	.276/23.3	.276/22.4	.274/23.3	.271/22.4	.265/20.9	.254/19.6	.244/18.0	.233/17.5	.222/17.0	.211/16.5	.200/16.5
	21	.275/25.1	.273/24.2	.269/23.3	.262/22.4	.253/21.7	.244/20.9	.233/20.3	.222/20.3	.211/20.3	.200/19.6	.189/19.0
20	7	.058/31.4	.061/29.9	.073/24.2	.102/19.0	.163/13.4	.239/8.7	.403/6.5	.600/7.1	.827/7.5	1.027/7.7	1.284/8.1
	9	.132/27.3	.137/26.2	.152/23.3	.183/19.0	.227/13.4	.354/10.8	.524/8.5	.729/7.9	.957/8.3	1.247/8.5	1.551/8.7
	11	.195/27.3	.199/26.2	.210/23.3	.230/19.0	.282/13.4	.429/10.8	.611/9.2	.837/8.5	1.127/8.5	1.486/8.7	1.845/8.9
	13	.233/27.3	.235/26.2	.241/23.3	.251/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6	.260/12.6
	15	.253/27.3	.253/26.2	.255/23.3	.259/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6	.260/12.6
	17	.261/27.3	.260/26.2	.260/23.3	.260/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6	.260/12.6
	19	.263/27.3	.262/26.2	.261/23.3	.258/24.2	.254/21.7	.248/19.6	.239/18.0	.228/17.5	.217/17.0	.206/16.5	.195/16.5
	21	.264/27.3	.263/26.2	.261/23.3	.257/26.2	.253/24.2	.246/22.4	.235/20.9	.224/20.3	.213/20.3	.202/19.6	.191/19.0
25	7	.061/33.1	.065/29.9	.071/24.2	.104/19.0	.148/13.4	.221/8.7	.403/6.5	.600/7.1	.827/7.5	1.027/7.7	1.284/8.1
	9	.131/28.3	.135/24.2	.144/21.7	.164/19.0	.209/13.4	.354/10.8	.524/8.5	.729/7.9	.957/8.3	1.247/8.5	1.551/8.7
	11	.189/33.1	.191/33.1	.197/29.9	.209/24.2	.235/19.0	.429/10.8	.611/9.2	.837/8.5	1.127/8.5	1.486/8.7	1.845/8.9
	13	.223/33.1	.224/33.1	.226/29.9	.231/24.2	.241/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6
	15	.241/33.1	.241/33.1	.240/29.9	.240/24.2	.241/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6
	17	.249/33.1	.248/33.1	.246/29.9	.244/24.2	.244/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6
	19	.252/33.1	.251/33.1	.248/29.9	.245/24.2	.243/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6
	21	.254/33.1	.253/33.1	.250/29.9	.246/24.2	.243/19.0	.260/18.0	.260/16.5	.260/15.0	.260/14.0	.260/13.0	.260/12.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.057/ 9.0	.061/ 8.7	.075/10.1	.108/ 9.2	.182/ 8.3	.307/ 6.4	.228/ 5.7	.273/ 6.3	.238/ 6.5	.162/ 6.8	.119/ 7.1	.102/ 7.3	.098/ 7.5	
9	9	.096/12.1	.101/11.6	.118/11.2	.150/10.5	.203/ 9.2	.270/ 7.1	.205/ 7.9	.263/ 7.0	.273/ 7.1	.229/ 7.7	.193/ 8.1	.172/ 8.3	.166/ 8.5	
11	11	.123/13.1	.127/12.5	.143/12.1	.182/11.2	.235/10.1	.297/ 8.3	.179/ 9.5	.229/ 8.1	.254/ 8.1	.237/ 8.5	.217/ 9.0	.204/ 9.0	.199/ 9.0	
13	13	.132/13.4	.134/13.4	.143/13.1	.182/11.2	.235/10.1	.297/ 8.3	.179/ 9.5	.229/ 8.1	.254/ 8.1	.237/ 8.5	.217/ 9.0	.204/ 9.0	.199/ 9.0	
15	15	.129/14.6	.131/14.3	.137/14.3	.145/14.3	.155/14.6	.164/14.3	.141/12.6	.170/12.1	.194/10.8	.191/10.5	.195/11.2	.192/11.2	.191/11.2	
17	17	.122/15.7	.124/15.7	.127/15.3	.132/15.3	.138/14.6	.143/14.6	.126/15.7	.149/13.7	.170/13.1	.175/11.6	.176/11.6	.175/12.6	.175/12.6	
19	19	.116/17.5	.117/17.0	.117/17.0	.120/17.0	.124/16.5	.126/16.1	.114/15.7	.132/15.3	.149/15.0	.155/13.1	.157/12.8	.158/12.6	.158/12.6	
21	21	.105/17.5	.106/17.5	.107/17.5	.109/17.0	.112/18.5	.113/18.5	.104/18.0	.118/17.5	.133/17.0	.139/14.6	.142/14.3	.143/14.3	.143/14.3	
10	7	.033/13.4	.036/12.8	.047/11.6	.073/11.2	.133/ 9.5	.228/ 7.0	.218/ 6.3	.263/ 6.3	.233/ 6.7	.169/ 6.8	.127/ 7.3	.108/ 7.3	.103/ 7.5	
9	9	.066/15.0	.071/14.6	.085/13.7	.112/12.1	.158/10.5	.224/ 7.9	.198/ 7.9	.238/ 7.0	.267/ 7.5	.247/ 7.9	.215/ 8.1	.195/ 8.3	.189/ 8.5	
11	11	.091/15.3	.094/15.3	.106/14.3	.127/13.1	.156/11.6	.146/ 9.5	.174/ 9.5	.227/ 8.1	.261/ 8.1	.236/ 8.5	.242/ 8.7	.230/ 9.0	.226/ 9.0	
13	13	.100/16.1	.103/16.1	.112/15.3	.126/14.3	.145/12.6	.168/12.1	.154/11.6	.196/ 9.8	.231/ 9.0	.237/ 9.2	.234/ 9.2	.230/ 9.8	.228/ 9.8	
15	15	.101/17.0	.103/17.0	.107/16.1	.120/15.3	.132/14.3	.146/13.4	.123/12.6	.170/12.1	.201/ 9.8	.212/10.1	.214/10.1	.214/10.8	.213/10.8	
17	17	.098/18.5	.099/18.0	.104/17.5	.111/16.5	.119/15.7	.124/15.0	.123/15.7	.149/13.7	.175/13.1	.187/11.6	.192/11.6	.194/12.1	.194/12.1	
19	19	.092/19.6	.093/19.6	.097/19.0	.102/18.5	.108/17.5	.111/17.5	.111/15.7	.132/15.3	.154/15.0	.166/13.1	.171/12.8	.174/12.6	.175/12.6	
21	21	.087/20.3	.088/19.6	.090/19.6	.094/20.3	.098/19.6	.104/19.0	.102/18.0	.118/17.5	.137/17.0	.147/14.6	.153/14.3	.156/14.3	.157/14.3	
15	7	.018/20.3	.020/19.6	.029/17.5	.050/14.3	.099/10.8	.210/ 7.7	.209/ 6.3	.260/ 6.3	.229/ 6.7	.167/ 7.3	.125/ 7.5	.105/ 7.5	.100/ 7.5	
9	9	.044/20.3	.048/19.6	.060/17.5	.084/14.3	.126/12.1	.192/ 8.7	.192/ 7.9	.260/ 7.0	.267/ 7.5	.258/ 7.9	.226/ 8.1	.206/ 8.3	.200/ 8.3	
11	11	.065/20.3	.068/19.6	.079/17.5	.099/15.3	.129/12.6	.184/11.2	.169/ 9.5	.229/ 8.3	.267/ 8.3	.268/ 8.7	.237/ 9.0	.248/ 9.0	.244/ 9.0	
13	13	.075/20.3	.077/19.6	.086/17.5	.101/15.7	.122/13.7	.147/12.8	.150/11.6	.196/ 9.8	.237/ 9.0	.247/ 9.2	.250/ 9.2	.247/ 9.8	.246/ 9.8	
15	15	.078/20.3	.080/19.6	.087/18.5	.098/16.5	.113/15.3	.130/14.0	.134/12.6	.171/12.1	.206/10.5	.222/10.1	.228/10.1	.230/10.1	.230/10.8	
17	17	.077/20.3	.079/19.6	.084/19.0	.092/18.5	.103/17.0	.116/15.3	.120/15.7	.150/13.7	.180/13.1	.196/11.6	.204/11.2	.208/11.2	.209/11.2	
19	19	.074/20.3	.075/20.3	.079/20.3	.086/19.6	.095/18.5	.105/17.0	.109/15.7	.133/15.3	.158/15.0	.173/13.1	.182/12.8	.186/12.6	.187/12.6	
21	21	.071/22.4	.072/22.4	.075/21.7	.080/21.7	.087/20.9	.095/19.0	.099/18.0	.119/17.5	.140/17.0	.154/14.6	.162/14.3	.167/14.3	.168/14.3	
20	7	.013/21.4	.013/20.6	.017/24.2	.033/19.0	.075/13.4	.171/ 8.5	.202/ 6.3	.264/ 6.5	.230/ 7.0	.169/ 7.3	.122/ 7.5	.100/ 7.7	.094/ 7.7	
9	9	.028/27.3	.031/26.2	.040/23.3	.060/19.0	.100/13.4	.162/ 9.2	.187/ 7.9	.267/ 6.7	.291/ 7.1	.268/ 7.7	.235/ 8.1	.215/ 8.3	.208/ 8.3	
11	11	.044/27.3	.047/26.2	.056/23.3	.075/19.0	.106/13.4	.166/11.0	.165/ 9.5	.235/ 8.1	.278/ 7.9	.281/ 8.3	.271/ 8.7	.263/ 9.0	.259/ 9.0	
13	13	.054/27.3	.056/26.2	.064/23.3	.079/19.0	.102/13.0	.130/13.4	.146/11.8	.202/ 9.8	.246/ 9.0	.261/ 9.2	.264/ 9.2	.263/ 9.8	.262/ 9.8	
15	15	.058/27.3	.060/26.2	.067/23.3	.079/19.0	.096/16.1	.117/14.6	.131/14.0	.175/12.1	.214/10.5	.233/10.5	.241/10.1	.244/10.8	.245/10.8	
17	17	.059/27.3	.061/26.2	.066/23.3	.076/19.0	.089/18.0	.105/16.1	.117/15.7	.153/13.7	.186/13.1	.203/11.2	.215/11.2	.220/11.2	.222/11.2	
19	19	.058/27.3	.060/26.2	.064/23.3	.072/19.0	.083/19.6	.096/18.0	.106/15.7	.135/15.3	.163/15.0	.181/14.6	.192/12.6	.197/12.6	.199/12.6	
21	21	.057/27.3	.058/26.2	.062/23.3	.068/19.0	.077/21.7	.097/18.0	.097/18.0	.121/17.5	.145/17.0	.161/14.6	.171/14.3	.176/14.3	.178/14.3	
25	7	.016/ 7.3	.015/52.4	.014/39.3	.020/25.1	.055/16.5	.142/ 9.2	.196/ 6.3	.270/ 6.5	.232/ 7.1	.164/ 7.5	.118/ 7.7	.095/ 7.9	.088/ 7.9	
9	9	.018/41.9	.020/39.3	.026/31.4	.041/24.2	.077/16.5	.139/10.1	.182/ 7.9	.278/ 7.0	.280/ 7.7	.280/ 7.9	.250/ 8.1	.228/ 8.3	.221/ 8.3	
11	11	.028/34.9	.031/33.1	.038/29.9	.054/24.2	.085/16.5	.128/12.1	.162/ 9.5	.245/ 7.0	.293/ 7.7	.299/ 8.3	.292/ 8.5	.282/ 8.7	.279/ 8.7	
13	13	.037/33.1	.039/33.1	.046/29.9	.060/24.2	.084/16.5	.117/14.0	.143/11.6	.210/ 9.5	.259/ 7.7	.278/ 8.3	.283/ 8.7	.282/ 9.0	.282/ 9.2	
15	15	.042/33.1	.044/33.1	.050/29.9	.062/24.2	.081/16.5	.106/15.3	.128/14.0	.181/12.1	.224/ 9.8	.247/10.1	.258/10.1	.261/10.1	.262/10.1	
17	17	.044/33.1	.046/33.1	.051/29.9	.061/24.2	.076/16.5	.106/16.5	.115/15.7	.151/13.1	.195/13.1	.217/11.2	.229/11.2	.235/11.2	.237/11.2	
19	19	.045/33.1	.047/33.1	.051/29.9	.059/24.2	.078/16.5	.108/18.5	.104/15.7	.138/15.3	.170/15.0	.191/13.1	.203/12.6	.210/12.6	.212/12.6	
21	21	.045/33.1	.047/33.1	.051/29.9	.057/24.2	.068/16.5	.082/20.3	.095/18.0	.123/17.5	.151/17.0	.169/15.0	.181/14.3	.187/14.3	.189/14.3	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

LUNGCRESTED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	119/ 9.0	129/ 8.7	163/ 8.3	250/ 9.2	465/ 7.9	934/ 6.3	780/ 5.2	883/ 5.7	724/ 6.3	484/ 6.8	369/ 7.1	326/ 5.2	316/ 5.2
	9	166/11.6	178/11.6	216/11.2	297/10.1	460/ 8.7	752/ 6.4	616/ 5.7	773/ 6.3	753/ 6.7	600/ 7.3	494/ 7.7	441/ 8.1	426/ 8.1
	11	193/12.6	203/12.1	233/11.6	292/10.8	401/ 9.2	581/ 6.7	481/ 7.9	618/ 6.5	648/ 7.1	568/ 7.9	502/ 8.3	465/ 8.5	454/ 8.7
	13	193/13.4	200/13.1	222/12.1	264/11.2	336/ 9.5	455/ 6.7	382/ 8.7	491/ 6.7	532/ 7.5	491/ 8.3	453/ 8.7	431/ 9.0	424/ 9.0
	15	179/13.4	184/13.4	200/13.1	230/11.6	281/ 9.8	363/ 6.8	310/11.2	395/ 7.0	435/ 7.7	414/ 8.3	392/ 9.0	379/ 9.2	375/ 9.2
	17	161/14.3	165/14.3	177/13.1	199/12.6	236/10.8	296/ 6.8	256/12.6	324/ 7.0	359/ 7.7	348/ 8.7	335/ 9.2	327/ 9.8	325/ 9.8
	19	143/14.6	146/14.3	155/14.0	172/12.8	200/11.2	246/ 6.8	215/12.6	269/ 7.0	300/ 7.7	294/ 8.7	286/ 9.2	282/10.1	280/10.1
	21	127/14.6	129/14.6	136/14.3	149/12.8	171/11.6	207/ 6.8	163/14.0	227/ 7.0	254/ 7.7	251/ 9.0	246/ 9.2	243/10.1	242/10.1
	10	7	946/13.4	952/12.8	973/11.6	130/11.2	284/ 9.2	729/ 6.7	741/ 5.7	893/ 5.7	766/ 6.5	554/ 6.8	435/ 7.1	381/ 7.3
9		987/14.6	995/14.3	1022/13.4	161/12.1	305/ 9.8	584/ 7.0	590/ 7.0	792/ 6.5	824/ 7.0	715/ 7.5	618/ 7.7	561/ 8.1	544/ 8.1
11		1112/15.3	120/15.0	144/14.3	191/12.8	279/10.8	461/ 7.3	463/ 7.5	637/ 6.5	716/ 7.1	680/ 7.9	630/ 8.3	597/ 8.5	586/ 8.5
13		1119/16.1	125/15.7	143/14.6	179/13.4	242/11.2	365/ 7.7	369/ 8.5	508/ 7.0	590/ 7.7	587/ 8.3	566/ 8.7	550/ 9.0	544/ 9.0
15		1155/17.0	119/16.1	134/15.3	161/13.7	206/12.1	293/11.2	299/11.2	409/ 7.0	483/ 7.7	493/ 8.3	487/ 9.0	480/ 9.2	477/ 9.2
17		1066/17.0	110/17.0	121/16.1	142/14.3	176/12.6	243/ 7.9	248/12.6	335/ 7.0	398/ 7.7	413/ 8.5	413/ 9.2	412/ 9.2	411/ 9.8
19		996/17.5	999/17.0	108/16.1	125/14.6	151/13.4	203/12.6	208/12.6	279/ 7.3	332/ 7.9	348/ 8.7	351/ 9.2	352/ 9.8	352/ 9.8
21		987/18.0	989/18.0	996/16.5	110/15.3	131/13.4	172/13.7	177/14.0	235/ 7.3	281/ 7.9	295/ 8.7	300/ 9.2	302/ 9.8	303/ 9.8
15		7	917/20.3	920/19.6	932/17.5	988/14.3	175/10.8	538/ 7.3	707/ 5.7	920/ 6.3	804/ 6.7	592/ 6.8	462/ 7.1	402/ 7.3
	9	943/20.3	948/19.6	966/17.5	109/14.3	206/11.6	447/ 7.9	567/ 6.3	829/ 6.3	892/ 7.0	804/ 7.5	711/ 7.9	654/ 8.1	635/ 8.1
	11	962/20.3	967/19.6	985/17.5	123/15.0	194/12.1	359/ 8.3	447/ 7.5	668/ 6.5	783/ 7.1	774/ 7.9	738/ 8.3	709/ 8.5	699/ 8.5
	13	970/20.3	974/19.6	990/17.5	121/15.3	177/12.8	290/ 8.3	357/ 8.5	534/ 6.7	647/ 7.7	670/ 8.3	665/ 8.7	656/ 9.0	652/ 9.0
	15	971/20.3	975/19.6	987/17.5	112/15.7	155/13.4	237/11.6	290/11.2	430/ 6.7	530/ 7.7	563/ 8.3	571/ 9.0	572/ 9.0	572/ 9.0
	17	968/20.3	971/19.6	981/18.5	101/16.5	134/14.0	198/12.8	240/12.6	352/ 6.7	437/ 7.7	471/ 8.5	484/ 9.2	490/ 9.2	491/ 9.8
	19	963/20.3	966/19.6	974/19.0	990/17.0	117/14.6	167/14.0	202/12.6	292/ 7.0	364/ 7.7	396/ 8.7	411/ 9.2	418/ 9.8	420/ 9.8
	21	959/20.3	961/19.6	968/19.0	981/17.5	103/15.7	143/15.3	172/14.0	247/ 7.0	307/ 7.9	336/ 8.7	351/ 9.2	358/ 9.8	360/ 9.8
	20	7	927/ 6.8	923/28.6	917/24.2	933/19.0	108/13.4	391/ 8.3	677/ 5.7	962/ 6.3	850/ 6.7	626/ 7.3	473/ 7.5	402/ 7.5
9		925/27.3	926/26.2	933/23.3	982/19.0	139/13.4	339/ 8.7	548/ 6.3	882/ 6.3	978/ 7.1	900/ 7.5	800/ 7.9	738/ 8.1	716/ 8.1
11		933/27.3	936/26.2	947/23.3	976/19.0	140/13.4	280/ 9.2	433/ 7.3	715/ 6.5	864/ 7.1	876/ 7.7	846/ 8.1	820/ 8.3	810/ 8.3
13		939/27.3	942/26.2	953/23.3	978/19.0	129/13.4	233/11.2	346/ 8.3	570/ 6.5	715/ 7.1	760/ 7.9	766/ 8.5	762/ 8.7	760/ 8.7
15		942/27.3	945/26.2	954/23.3	975/19.0	115/15.0	193/12.6	282/11.2	458/ 6.5	585/ 7.1	638/ 8.1	658/ 8.7	665/ 9.0	667/ 9.0
17		942/27.3	945/26.2	953/23.3	978/19.0	102/15.0	163/13.4	234/12.6	375/ 6.7	482/ 7.5	533/ 8.3	557/ 9.0	569/ 9.2	572/ 9.2
19		941/27.3	943/26.2	950/23.3	964/19.0	991/16.1	139/14.6	179/14.6	261/ 6.7	401/ 7.5	448/ 8.3	472/ 9.2	489/ 9.8	489/ 9.8
21		939/27.3	941/26.2	947/23.3	959/19.0	931/17.0	120/15.7	168/14.0	236/ 6.7	338/ 7.7	379/ 8.3	402/ 9.2	415/ 9.8	418/ 9.8
25		7	945/ 7.1	947/ 6.7	935/ 6.3	920/25.1	963/16.5	289/ 9.0	652/ 5.7	1010/ 6.3	895/ 7.0	650/ 7.3	483/ 7.7	399/ 7.7
	9	930/ 7.1	926/29.9	926/29.9	933/24.2	949/16.5	262/ 9.5	532/ 6.3	948/ 6.5	978/ 7.1	906/ 7.7	806/ 8.1	738/ 8.1	716/ 8.1
	11	924/34.9	926/33.1	928/29.9	944/24.2	945/16.5	223/ 9.8	421/ 7.3	772/ 6.7	963/ 7.5	996/ 7.9	978/ 8.3	953/ 8.3	942/ 8.5
	13	924/33.1	926/33.1	932/29.9	949/24.2	942/16.5	188/12.1	337/ 7.9	615/ 6.7	798/ 7.7	867/ 8.1	888/ 8.5	890/ 8.7	889/ 8.7
	15	926/33.1	928/33.1	934/29.9	949/24.2	945/16.5	150/13.1	275/11.2	469/ 6.7	652/ 7.7	728/ 8.1	763/ 8.5	776/ 8.7	780/ 8.7
	17	926/33.1	928/33.1	934/29.9	949/24.2	947/16.5	136/14.0	228/12.6	403/ 6.7	536/ 7.7	607/ 8.1	643/ 8.5	663/ 8.7	668/ 8.7
	19	926/33.1	928/33.1	934/29.9	945/24.2	947/16.5	118/14.0	192/12.6	334/ 6.7	446/ 7.7	509/ 8.7	546/ 8.5	564/ 8.7	569/ 8.7
	21	926/33.1	928/33.1	933/29.9	943/24.2	943/16.5	103/16.5	164/14.0	280/ 6.7	375/ 7.7	431/ 8.1	464/ 8.5	481/ 8.7	487/ 8.7

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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LONGCRESTED
PMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
HELICOPTER DECK RULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES														NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.	
		0	15	30	45	60	75	90	105	120	135	150	165	180			
5	7	.000/9.5	.039/9.5	.063/9.5	.091/9.5	.148/9.2	.198/8.3	.173/7.9	.170/7.5	.121/7.1	.068/7.7	.034/7.9	.015/8.10	.000/0.000			
	9	.000/9.5	.046/9.5	.082/9.5	.126/9.8	.193/9.5	.231/9.2	.209/9.2	.217/9.2	.185/9.0	.129/9.0	.077/9.2	.038/9.00	.000/0.000			
	11	.000/9.5	.050/9.5	.092/10.0	.137/9.8	.192/9.5	.219/9.2	.206/9.2	.215/9.2	.193/9.2	.145/9.2	.093/9.2	.047/9.20	.000/0.000			
	13	.000/9.5	.056/15.7	.105/15.3	.150/15.3	.193/9.5	.215/16.1	.209/15.7	.205/15.3	.183/15.0	.143/9.2	.096/9.2	.050/9.20	.000/0.000			
	15	.000/17.5	.062/17.5	.116/17.0	.162/17.0	.199/15.0	.215/18.0	.208/17.5	.208/17.5	.185/17.0	.145/17.0	.099/16.5	.051/16.50	.000/0.000			
	17	.000/19.6	.065/19.6	.122/19.0	.170/19.0	.205/18.5	.220/18.5	.215/18.0	.212/18.0	.187/19.6	.148/19.6	.102/19.6	.052/19.00	.000/0.000			
	21	.000/22.4	.068/22.4	.128/22.4	.177/21.7	.212/21.7	.228/20.9	.227/20.9	.216/20.3	.191/20.3	.152/19.6	.105/19.6	.054/19.60	.000/0.000			
10	7	.000/14.0	.017/13.7	.037/12.8	.057/12.8	.159/9.5	.211/8.5	.167/7.9	.151/7.3	.101/7.1	.053/7.7	.026/7.9	.011/7.90	.000/0.000			
	9	.000/15.0	.040/14.6	.079/14.0	.132/9.8	.183/9.5	.230/9.2	.199/9.0	.196/9.2	.159/9.2	.110/9.2	.066/9.2	.032/9.80	.000/0.000			
	11	.000/16.1	.058/15.7	.110/15.3	.155/14.3	.190/9.8	.218/9.2	.198/9.2	.200/9.3	.173/9.5	.135/10.1	.089/10.1	.045/10.10	.000/0.000			
	13	.000/17.0	.069/17.0	.130/16.5	.175/15.7	.201/15.7	.215/15.0	.199/14.0	.195/9.8	.173/9.8	.137/10.1	.093/10.1	.048/10.10	.000/0.000			
	15	.000/18.5	.075/18.0	.141/17.5	.187/17.0	.212/17.5	.221/16.5	.206/15.7	.196/15.3	.172/15.0	.136/10.5	.092/10.1	.048/10.10	.000/0.000			
	17	.000/19.6	.078/19.6	.145/19.0	.194/18.5	.220/18.5	.232/18.0	.214/18.0	.199/17.5	.173/17.0	.137/17.0	.093/16.5	.048/16.50	.000/0.000			
	21	.000/21.7	.078/21.7	.146/20.9	.196/20.9	.224/19.6	.232/19.0	.221/18.0	.204/20.3	.177/19.6	.139/19.6	.095/19.6	.048/19.00	.000/0.000			
15	7	.000/22.4	.078/22.4	.146/21.7	.197/23.3	.226/22.4	.235/21.7	.226/20.9	.209/20.3	.181/20.3	.143/19.6	.098/19.6	.050/19.60	.000/0.000			
	9	.000/7.3	.071/7.3	.098/17.5	.122/14.3	.145/10.5	.218/8.7	.161/7.9	.134/7.5	.084/7.7	.043/7.7	.021/8.1	.008/8.10	.000/0.000			
	11	.000/7.3	.076/19.6	.130/17.5	.167/14.6	.173/13.1	.225/9.2	.191/9.0	.175/9.2	.136/9.0	.090/9.0	.054/9.2	.025/9.20	.000/0.000			
	13	.000/20.3	.089/19.6	.159/17.5	.201/15.7	.200/13.7	.229/15.0	.193/9.2	.185/9.8	.157/9.8	.115/10.5	.077/10.1	.039/11.20	.000/0.000			
	15	.000/20.3	.096/19.6	.173/17.5	.219/17.0	.220/13.7	.230/15.0	.196/14.0	.185/10.1	.159/10.5	.121/10.5	.083/11.2	.043/11.20	.000/0.000			
	17	.000/20.3	.097/19.6	.177/17.5	.226/18.5	.234/17.0	.239/17.0	.205/15.7	.187/15.3	.160/15.0	.123/11.2	.084/11.2	.044/11.20	.000/0.000			
	21	.000/20.3	.096/19.6	.176/20.3	.226/20.3	.240/18.0	.236/19.0	.214/18.0	.192/17.5	.162/17.0	.125/17.0	.085/11.2	.044/11.20	.000/0.000			
20	7	.000/20.3	.094/22.4	.173/21.7	.224/22.4	.242/20.9	.240/19.6	.220/18.0	.197/20.3	.166/19.6	.128/19.6	.087/19.6	.044/19.00	.000/0.000			
	9	.000/20.3	.092/24.2	.170/23.3	.221/22.4	.243/23.3	.243/22.4	.226/20.9	.203/20.3	.171/20.3	.132/19.6	.090/19.6	.046/19.60	.000/0.000			
	11	.000/0.000	.152/78.5	.254/7.5	.247/19.0	.167/13.4	.230/9.0	.159/7.9	.123/7.5	.073/7.7	.036/7.7	.017/7.9	.007/7.90	.000/0.000			
	13	.000/0.000	.155/26.2	.250/23.3	.258/19.0	.216/13.4	.227/9.2	.189/9.0	.164/9.2	.121/9.0	.078/9.0	.046/9.2	.021/9.20	.000/0.000			
	15	.000/0.000	.148/26.2	.248/23.3	.254/19.0	.246/13.0	.222/13.4	.192/9.2	.178/10.1	.144/10.5	.104/10.5	.068/11.2	.035/11.20	.000/0.000			
	17	.000/0.000	.140/26.2	.240/23.3	.255/19.0	.262/17.0	.229/15.7	.196/14.0	.179/10.1	.150/10.8	.113/11.6	.079/11.2	.043/11.20	.000/0.000			
	21	.000/0.000	.132/26.2	.230/23.3	.274/19.0	.269/18.5	.239/17.5	.205/15.7	.182/15.3	.152/11.6	.116/11.6	.081/12.6	.044/12.60	.000/0.000			
25	7	.000/0.000	.125/26.2	.220/23.3	.271/19.0	.269/18.5	.246/19.0	.213/18.0	.186/17.5	.154/17.0	.117/17.0	.081/12.6	.044/12.60	.000/0.000			
	9	.000/0.000	.119/26.2	.210/23.3	.262/19.0	.268/21.7	.250/19.6	.220/18.0	.191/20.3	.157/19.6	.120/19.6	.082/19.6	.044/12.60	.000/0.000			
	11	.000/0.000	.114/26.2	.202/23.3	.254/19.0	.266/22.4	.254/22.4	.226/20.9	.197/20.3	.162/20.3	.124/19.6	.084/19.6	.044/19.60	.000/0.000			
	13	.000/0.000	.148/9.8	.311/8.7	.425/0.000	.302/15.5	.232/9.5	.157/7.9	.112/7.5	.064/7.5	.031/7.7	.015/7.9	.006/7.90	.000/0.000			
	15	.000/0.000	.213/9.8	.378/33.3	.429/24.2	.320/15.5	.224/9.5	.187/9.0	.152/9.2	.108/9.0	.069/9.2	.040/9.2	.018/9.20	.000/0.000			
	17	.000/0.000	.225/37.0	.376/29.9	.407/24.2	.326/16.5	.227/14.0	.191/9.2	.169/10.1	.132/10.5	.094/10.5	.062/11.2	.031/11.20	.000/0.000			
	21	.000/0.000	.215/33.1	.352/29.9	.360/24.2	.324/18.5	.238/15.3	.196/14.0	.173/10.8	.141/11.6	.107/11.6	.075/12.6	.039/12.60	.000/0.000			
	13	.000/0.000	.200/33.1	.326/29.9	.356/24.2	.319/18.5	.250/18.0	.205/15.7	.180/17.5	.144/12.6	.111/12.6	.078/12.6	.041/12.60	.000/0.000			
	15	.000/0.000	.185/33.1	.301/29.9	.334/24.2	.310/18.5	.247/18.5	.213/18.0	.180/17.5	.146/17.0	.112/17.0	.078/12.6	.041/12.60	.000/0.000			
	17	.000/0.000	.170/33.1	.280/29.9	.316/24.2	.302/18.5	.240/20.3	.220/18.0	.185/20.3	.150/20.3	.114/19.6	.078/19.6	.040/12.60	.000/0.000			
	21	.000/0.000	.159/33.1	.264/29.9	.302/24.2	.296/18.5	.232/23.3	.225/20.9	.191/20.3	.155/20.3	.117/20.3	.080/19.6	.041/19.60	.000/0.000			

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK RULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.000/9.5	.026/9.5	.043/9.5	.062/9.5	.107/9.0	.153/7.9	.160/7.3	.162/6.7	.109/7.1	.058/7.3	.030/7.7	.013/7.9	.000/8.0	
9	9	.000/9.5	.029/9.5	.050/9.8	.080/9.8	.132/9.2	.174/9.0	.166/9.0	.177/9.2	.146/8.7	.058/9.0	.030/9.2	.028/9.0	.000/8.0	
11	11	.000/9.5	.029/9.5	.050/9.8	.079/9.8	.121/9.5	.152/9.2	.148/9.2	.150/9.2	.125/9.2	.049/9.2	.061/9.2	.032/9.2	.000/8.0	
13	13	.000/9.5	.027/9.5	.050/14.3	.076/9.8	.108/9.5	.131/9.2	.129/9.2	.136/9.2	.125/9.2	.094/9.2	.061/9.2	.032/9.2	.000/8.0	
15	15	.000/9.5	.026/15.7	.050/15.7	.073/15.3	.098/9.5	.116/9.2	.115/9.2	.121/9.2	.110/9.2	.084/9.2	.056/9.2	.029/9.2	.000/8.0	
17	17	.000/9.5	.025/17.5	.048/17.0	.069/17.0	.091/16.5	.104/16.1	.104/16.1	.108/9.2	.098/9.2	.076/9.2	.051/9.2	.027/9.2	.000/8.0	
19	19	.000/9.5	.024/19.6	.046/19.0	.065/19.0	.084/18.5	.095/18.5	.096/18.0	.097/17.5	.088/17.0	.070/9.2	.047/9.2	.024/9.2	.000/8.0	
21	21	.000/19.6	.023/19.6	.043/19.6	.062/19.0	.088/19.0	.088/18.5	.089/18.0	.089/18.0	.081/17.5	.064/17.0	.044/17.0	.023/19.0	.000/8.0	
10	7	.000/15.0	.007/13.7	.018/13.6	.071/9.8	.106/9.5	.166/8.3	.156/7.3	.152/7.0	.099/7.1	.051/7.3	.025/7.7	.011/7.7	.000/8.0	
9	9	.000/15.0	.017/14.6	.036/13.7	.072/9.8	.114/9.5	.167/9.0	.159/9.0	.167/8.7	.134/8.5	.091/8.7	.054/9.0	.026/9.0	.000/8.0	
11	11	.000/15.7	.023/15.7	.046/15.7	.075/14.3	.106/9.5	.164/9.2	.142/9.0	.153/9.5	.135/9.5	.092/9.5	.067/10.1	.034/9.0	.000/8.0	
13	13	.000/17.0	.026/16.5	.051/16.1	.075/15.3	.099/9.5	.125/9.2	.125/9.2	.133/9.5	.121/9.5	.096/10.1	.065/10.1	.034/10.0	.000/8.0	
15	15	.000/17.5	.027/18.0	.052/17.5	.074/16.5	.093/15.7	.122/9.2	.112/9.2	.117/9.5	.108/9.8	.086/10.1	.059/10.1	.031/10.0	.000/8.0	
17	17	.000/18.5	.026/18.5	.050/18.0	.071/18.5	.088/17.5	.102/16.5	.102/16.5	.105/9.5	.096/9.8	.078/10.1	.054/10.1	.028/10.0	.000/8.0	
19	19	.000/19.6	.025/19.6	.048/19.0	.067/18.5	.082/18.5	.094/18.5	.094/18.0	.096/17.5	.087/17.0	.070/10.1	.049/10.1	.025/10.0	.000/8.0	
21	21	.000/21.7	.023/21.7	.045/20.9	.063/20.3	.077/19.6	.087/19.0	.088/18.0	.088/18.0	.080/19.5	.065/19.5	.045/10.1	.023/10.0	.000/8.0	
15	7	.000/20.3	.011/19.6	.023/17.5	.040/14.3	.085/10.5	.153/8.5	.151/7.3	.143/7.0	.090/7.1	.046/7.5	.022/7.7	.009/7.9	.000/8.0	
9	9	.000/20.3	.020/19.6	.043/17.5	.067/14.3	.091/10.5	.156/9.0	.153/8.7	.156/8.5	.122/8.3	.081/8.5	.049/8.7	.023/8.7	.000/8.0	
11	11	.000/20.3	.027/19.6	.054/17.5	.078/15.3	.094/13.7	.135/9.0	.137/9.0	.145/9.5	.126/9.5	.093/9.5	.062/10.1	.031/10.0	.000/8.0	
13	13	.000/20.3	.029/19.6	.057/17.5	.081/16.5	.094/15.3	.120/9.2	.121/9.2	.128/9.8	.116/10.5	.090/10.5	.062/11.2	.032/11.2	.000/8.0	
15	15	.000/20.3	.029/19.6	.056/17.5	.079/17.5	.092/17.0	.139/15.3	.110/14.0	.114/9.8	.104/10.5	.082/10.5	.058/11.2	.030/11.2	.000/8.0	
17	17	.000/20.3	.028/19.6	.054/17.5	.075/18.5	.084/18.5	.101/17.0	.101/15.7	.103/15.3	.093/10.5	.074/10.5	.053/11.2	.028/11.2	.000/8.0	
19	19	.000/20.3	.026/19.6	.051/20.3	.071/20.3	.083/19.0	.093/19.0	.093/18.0	.094/17.5	.085/17.0	.068/17.0	.048/11.2	.025/11.2	.000/8.0	
21	21	.000/20.3	.024/19.6	.051/21.7	.066/21.7	.078/20.9	.087/19.5	.087/18.0	.086/18.0	.078/19.5	.063/19.5	.044/11.2	.023/11.2	.000/8.0	
20	7	.000/27.3	.013/31.4	.029/25.1	.051/19.0	.072/13.4	.152/9.0	.149/7.3	.137/7.0	.084/7.1	.042/7.3	.020/7.5	.008/7.9	.000/8.0	
9	9	.000/27.3	.022/26.2	.048/23.3	.078/19.0	.094/13.4	.159/9.2	.151/8.7	.151/8.5	.116/8.3	.076/8.7	.045/9.0	.021/9.0	.000/8.0	
11	11	.000/27.3	.027/26.2	.057/23.3	.088/19.0	.102/13.4	.159/9.2	.156/9.0	.143/9.8	.122/9.5	.089/9.5	.059/10.1	.030/10.0	.000/8.0	
13	13	.000/27.3	.029/26.2	.059/23.3	.088/19.0	.101/15.1	.117/14.6	.121/9.2	.127/10.1	.113/10.5	.088/10.5	.062/11.2	.033/11.2	.000/8.0	
15	15	.000/27.3	.029/26.2	.058/23.3	.085/19.0	.099/17.0	.109/15.7	.110/14.0	.113/10.1	.102/10.8	.081/11.2	.058/11.2	.032/12.0	.000/8.0	
17	17	.000/27.3	.028/26.2	.055/23.3	.079/19.0	.092/18.5	.100/17.5	.101/15.7	.102/15.3	.092/10.8	.074/11.6	.053/11.2	.030/12.0	.000/8.0	
19	19	.000/27.3	.026/26.2	.051/23.3	.074/19.0	.086/14.6	.093/19.0	.093/18.0	.093/17.5	.084/17.0	.068/11.6	.049/11.2	.027/12.0	.000/8.0	
21	21	.000/27.3	.025/26.2	.048/23.3	.069/19.0	.081/21.7	.087/19.5	.087/18.0	.086/20.3	.077/19.5	.062/19.5	.045/11.6	.024/12.0	.000/8.0	
25	7	.000/27.3	.011/57.1	.025/44.9	.055/27.3	.088/16.5	.152/9.2	.147/7.3	.131/7.0	.078/7.1	.039/7.3	.019/7.5	.008/7.9	.000/8.0	
9	9	.000/27.3	.020/41.9	.046/33.1	.079/24.2	.110/16.5	.135/9.5	.150/8.5	.145/8.3	.110/8.5	.071/8.7	.042/9.0	.019/9.0	.000/8.0	
11	11	.000/27.3	.027/34.9	.057/29.9	.089/24.2	.114/16.5	.121/9.5	.135/9.0	.139/9.8	.116/9.5	.085/9.5	.057/10.1	.028/10.0	.000/8.0	
13	13	.000/33.1	.031/33.1	.061/29.9	.089/24.2	.111/16.5	.120/9.2	.125/10.1	.125/10.1	.101/10.8	.086/11.2	.061/11.2	.032/12.0	.000/8.0	
15	15	.000/33.1	.031/33.1	.060/29.9	.086/24.2	.105/16.5	.115/16.5	.109/14.0	.112/10.8	.101/10.8	.081/11.6	.059/12.6	.032/12.0	.000/8.0	
17	17	.000/33.1	.030/33.1	.058/29.9	.081/24.2	.098/16.5	.100/15.7	.101/15.7	.101/15.3	.091/11.6	.074/11.6	.055/12.6	.029/12.0	.000/8.0	
19	19	.000/33.1	.029/33.1	.055/29.9	.076/24.2	.091/15.5	.093/18.5	.093/18.0	.092/17.5	.083/17.0	.068/12.8	.050/12.6	.027/12.0	.000/8.0	
21	21	.000/33.1	.027/33.1	.052/29.9	.071/24.2	.084/16.5	.087/20.3	.087/18.0	.085/20.3	.076/19.5	.062/19.5	.045/12.6	.024/12.0	.000/8.0	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS RADIAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
HMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)
HELICOPTER DECK HULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/9.5	.054/9.5	.092/9.5	.136/9.5	.244/8.7	.434/7.5	.507/6.7	.511/6.3	.316/6.7	.166/7.3	.086/7.5	.039/7.5	.000/9.5
	9	.000/9.5	.057/9.5	.101/9.5	.163/9.5	.285/9.2	.426/8.7	.452/8.7	.436/8.7	.377/9.9	.243/8.3	.141/8.7	.067/9.0	.000/9.5
	11	.000/9.5	.050/9.5	.092/9.5	.149/9.5	.250/9.2	.384/9.2	.291/9.2	.406/9.4	.343/9.0	.241/9.0	.149/9.2	.074/9.0	.000/9.5
	13	.000/9.5	.044/9.5	.082/9.5	.131/9.5	.238/9.2	.364/9.2	.242/9.2	.329/9.2	.286/9.2	.210/9.2	.133/9.2	.068/9.0	.000/9.5
	15	.000/9.5	.039/9.5	.074/9.5	.115/9.5	.219/9.2	.340/9.2	.202/9.2	.287/9.2	.237/9.2	.177/9.2	.114/9.2	.059/9.0	.000/9.5
	17	.000/9.5	.035/9.5	.066/15.7	.101/9.5	.169/9.5	.283/9.2	.202/9.2	.221/9.2	.197/9.2	.149/9.2	.098/9.2	.050/9.0	.000/9.5
	19	.000/9.5	.031/17.5	.059/17.0	.089/9.8	.128/9.5	.193/9.2	.171/9.2	.186/9.2	.166/9.2	.127/9.2	.084/9.2	.043/9.0	.000/9.5
10	7	.000/9.5	.028/17.5	.053/17.5	.079/9.8	.111/9.5	.140/9.2	.147/9.2	.158/9.2	.142/9.2	.109/9.2	.073/9.2	.038/9.0	.000/9.5
	9	.000/14.0	.010/13.7	.028/12.5	.057/9.8	.223/9.5	.419/7.5	.494/6.7	.513/6.3	.317/6.7	.164/7.3	.083/7.5	.037/7.5	.000/9.5
	11	.000/14.0	.022/14.3	.051/13.7	.080/9.8	.227/9.5	.424/7.5	.499/6.7	.518/6.3	.322/6.7	.169/7.3	.088/7.5	.042/7.5	.000/9.5
	13	.000/15.3	.029/15.0	.058/14.3	.087/9.8	.231/9.5	.429/7.5	.499/6.7	.523/6.3	.327/6.7	.174/7.3	.093/7.5	.047/7.5	.000/9.5
	15	.000/16.1	.031/15.7	.060/15.3	.090/9.8	.236/9.5	.434/7.5	.509/6.7	.528/6.3	.332/6.7	.179/7.3	.098/7.5	.052/7.5	.000/9.5
	17	.000/17.0	.030/16.5	.061/16.1	.099/15.3	.241/9.5	.439/7.5	.514/6.7	.533/6.3	.337/6.7	.184/7.3	.103/7.5	.057/7.5	.000/9.5
	19	.000/17.5	.028/17.0	.057/16.5	.089/16.5	.246/9.5	.444/7.5	.519/6.7	.538/6.3	.342/6.7	.189/7.3	.108/7.5	.062/7.5	.000/9.5
15	7	.000/18.5	.026/18.0	.052/17.5	.087/17.0	.251/9.5	.449/7.5	.524/6.7	.543/6.3	.347/6.7	.194/7.3	.113/7.5	.067/7.5	.000/9.5
	9	.000/18.5	.023/18.5	.047/19.0	.084/17.5	.256/9.5	.454/7.5	.529/6.7	.548/6.3	.352/6.7	.199/7.3	.118/7.5	.072/7.5	.000/9.5
	11	.000/20.3	.011/19.6	.025/17.5	.054/14.3	.234/10.5	.431/8.3	.481/7.5	.510/6.3	.314/6.7	.161/7.3	.082/7.5	.036/7.5	.000/9.5
	13	.000/20.3	.020/19.6	.048/17.5	.087/14.3	.239/10.5	.436/8.3	.486/7.5	.515/6.3	.319/6.7	.166/7.3	.087/7.5	.041/7.5	.000/9.5
	15	.000/20.3	.026/19.6	.058/17.5	.094/15.0	.244/10.5	.441/8.3	.491/7.5	.520/6.3	.324/6.7	.171/7.3	.092/7.5	.046/7.5	.000/9.5
	17	.000/20.3	.028/19.6	.060/17.5	.096/15.7	.249/10.5	.446/8.3	.496/7.5	.525/6.3	.329/6.7	.176/7.3	.097/7.5	.051/7.5	.000/9.5
	19	.000/20.3	.027/19.6	.057/17.5	.090/16.5	.254/10.5	.451/8.3	.491/7.5	.530/6.3	.334/6.7	.181/7.3	.102/7.5	.056/7.5	.000/9.5
20	7	.000/20.3	.025/19.6	.053/17.5	.082/17.5	.259/10.5	.456/8.3	.496/7.5	.535/6.3	.339/6.7	.186/7.3	.107/7.5	.061/7.5	.000/9.5
	9	.000/20.3	.023/19.6	.048/17.5	.073/17.5	.264/10.5	.461/8.3	.491/7.5	.540/6.3	.344/6.7	.191/7.3	.112/7.5	.066/7.5	.000/9.5
	11	.000/20.3	.021/19.6	.043/17.5	.066/18.5	.269/10.5	.466/8.3	.496/7.5	.545/6.3	.349/6.7	.196/7.3	.117/7.5	.071/7.5	.000/9.5
	13	.000/27.3	.015/26.2	.038/23.3	.079/17.0	.103/13.4	.362/8.7	.475/6.5	.515/6.3	.318/6.7	.164/7.3	.083/7.5	.036/7.5	.000/9.5
	15	.000/27.3	.019/26.2	.047/23.3	.089/17.0	.130/13.4	.367/8.7	.480/6.5	.520/6.3	.323/6.7	.169/7.3	.088/7.5	.041/7.5	.000/9.5
	17	.000/27.3	.021/26.2	.049/23.3	.091/17.0	.135/13.4	.372/8.7	.485/6.5	.525/6.3	.328/6.7	.174/7.3	.093/7.5	.046/7.5	.000/9.5
	19	.000/27.3	.020/26.2	.044/23.3	.082/17.0	.140/13.4	.377/8.7	.490/6.5	.530/6.3	.333/6.7	.179/7.3	.098/7.5	.051/7.5	.000/9.5
25	7	.000/27.3	.019/26.2	.041/23.3	.075/17.0	.150/13.4	.382/8.7	.495/6.5	.535/6.3	.338/6.7	.184/7.3	.103/7.5	.056/7.5	.000/9.5
	9	.000/27.3	.017/26.2	.037/23.3	.067/17.0	.155/13.4	.387/8.7	.500/6.5	.540/6.3	.343/6.7	.189/7.3	.108/7.5	.061/7.5	.000/9.5
	11	.000/27.3	.017/33.1	.035/29.9	.058/24.2	.096/16.5	.293/9.5	.440/7.9	.513/7.5	.408/7.7	.279/8.1	.199/8.3	.099/8.5	.000/9.5
	13	.000/33.1	.016/33.1	.033/29.9	.053/24.2	.091/16.5	.288/9.5	.435/7.9	.508/7.5	.403/7.7	.274/8.1	.194/8.3	.094/8.5	.000/9.5
	15	.000/33.1	.017/33.1	.035/29.9	.058/24.2	.096/16.5	.293/9.5	.440/7.9	.513/7.5	.408/7.7	.279/8.1	.199/8.3	.099/8.5	.000/9.5
	17	.000/33.1	.017/33.1	.033/29.9	.053/24.2	.091/16.5	.288/9.5	.435/7.9	.508/7.5	.403/7.7	.274/8.1	.194/8.3	.094/8.5	.000/9.5
	19	.000/33.1	.017/33.1	.033/29.9	.053/24.2	.091/16.5	.288/9.5	.435/7.9	.508/7.5	.403/7.7	.274/8.1	.194/8.3	.094/8.5	.000/9.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGGESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
HELICOPTER DECK RULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

SHIP HEADING ANGLE IN DEGREES													
V T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7 046/10.8 093/12.6 110/12.1 130/13.4 147/13.7 177/15.7 203/17.5 218/19.6 226/19.6 233/22.4	049/10.8 097/12.1 110/12.1 130/13.4 147/13.7 177/15.7 203/17.5 218/19.6 226/19.6 233/22.4	059/10.5 110/12.1 130/13.4 147/13.7 177/15.7 203/17.5 218/19.6 226/19.6 233/22.4	078/9.8 135/11.2 157/13.1 180/15.3 203/17.5 218/19.6 226/19.6 233/22.4	120/8.7 173/10.5 206/12.1 225/13.7 236/16.1 241/18.0 245/18.0 248/21.7	190/7.7 222/9.5 237/11.0 245/13.1 250/15.0 253/17.5 255/18.0 255/20.9	226/7.0 253/9.0 253/11.2 255/13.7 256/15.0 258/17.5 259/18.0 259/20.9	279/6.7 219/8.7 236/10.8 245/12.6 250/15.0 253/17.5 255/18.0 255/20.9	113/7.1 173/8.7 207/10.5 226/12.1 238/15.0 243/17.0 246/17.0 249/20.3	077/7.5 139/9.0 182/10.8 209/12.8 226/14.6 235/16.5 240/17.0 245/19.6	060/7.5 117/9.0 164/10.1 196/12.5 216/14.3 228/16.5 235/17.0 241/19.6	053/7.7 105/9.0 153/10.8 187/12.5 210/14.3 220/16.5 223/16.5 239/19.6	050/7.7 101/9.0 149/10.8 184/12.6 208/14.3 222/16.1 223/16.5 238/19.6
10	7 039/13.4 087/15.0 130/16.1 166/18.0 191/19.6 207/21.7 218/22.4 221/25.1	041/12.8 087/15.0 134/16.1 169/18.0 193/19.6 208/21.7 218/22.4 221/25.1	049/11.5 100/14.0 146/15.3 179/16.5 201/19.0 215/20.9 224/22.4 231/24.2	067/11.6 123/13.1 167/14.3 195/15.7 213/18.0 224/18.5 231/20.9 237/23.3	105/9.8 158/11.6 194/13.4 215/14.6 228/15.7 235/18.0 239/18.0 243/26.4	173/8.3 208/10.1 237/12.1 252/13.7 253/15.7 256/17.0 257/18.0 257/21.7	224/7.0 243/9.0 249/11.2 252/12.6 253/15.7 256/17.0 257/18.0 257/21.7	183/6.7 221/8.7 236/10.8 244/12.6 248/15.3 249/17.5 250/17.5 251/20.3	111/7.1 171/8.7 204/10.5 223/13.1 235/15.0 240/17.0 244/17.5 247/20.3	069/7.7 131/9.0 176/10.5 204/12.8 231/14.6 231/16.5 237/17.0 242/19.6	053/7.7 109/9.2 157/10.1 189/12.6 211/14.3 223/16.5 232/17.0 238/19.6	047/7.9 097/9.0 146/10.8 180/12.6 204/14.3 218/16.5 228/16.5 234/19.6	046/5.7 094/9.0 142/10.8 178/12.6 202/14.3 217/16.1 227/16.5 234/19.6
15	7 033/20.3 075/20.3 120/20.3 156/20.3 182/21.7 199/23.3 211/25.1 221/27.3	035/19.6 079/19.6 124/19.6 159/19.6 182/21.7 199/23.3 211/25.1 221/27.3	043/17.5 136/17.5 169/19.0 192/20.3 206/21.7 217/23.3 225/26.2	060/14.3 157/16.5 185/17.5 205/19.0 216/20.3 224/22.4 231/25.1	095/11.2 149/12.8 185/14.6 207/15.7 224/17.0 234/19.6 238/23.3	159/9.0 218/12.8 240/14.0 247/15.7 250/17.5 254/19.6 255/22.4	220/7.0 246/11.2 249/12.6 250/15.7 250/18.0 254/18.0 250/20.9	189/6.5 227/8.5 240/10.8 245/12.6 248/15.3 249/17.5 250/17.5 250/20.3	119/7.0 178/8.7 208/10.5 224/13.1 234/15.0 239/17.0 245/17.5 245/20.3	072/7.3 134/9.0 176/10.5 202/12.8 219/14.6 224/16.5 235/17.0 240/19.6	049/7.5 106/9.2 154/10.5 185/12.6 207/14.3 220/16.5 229/17.0 235/19.6	041/7.7 092/9.0 141/10.8 175/12.6 199/14.3 214/16.5 225/16.5 232/19.6	039/7.9 098/8.3 136/10.8 172/12.6 197/14.3 213/16.5 223/16.5 231/19.6
20	7 031/31.4 070/27.3 113/27.3 148/27.3 174/27.3 192/27.3 205/27.3 215/27.3	032/28.6 073/26.2 116/26.2 151/26.2 176/26.2 193/26.2 206/26.2 216/26.2	038/24.2 083/23.3 127/23.3 159/23.3 183/23.3 199/23.3 210/23.3 220/26.2	054/19.0 104/19.0 146/19.0 176/19.0 196/20.9 209/22.4 218/24.2 225/26.2	084/13.4 141/13.4 177/13.4 199/17.0 224/18.5 228/22.4 233/25.1	143/9.5 187/11.2 211/13.4 224/14.6 232/16.1 236/18.0 241/22.4	218/7.0 248/11.2 249/12.6 250/15.7 250/18.0 254/18.0 250/20.9	195/6.7 235/8.3 245/10.8 248/13.4 249/15.3 249/17.5 249/17.5 250/20.3	129/7.1 192/7.7 218/10.5 230/13.1 238/15.0 241/17.0 243/17.5 245/20.3	080/7.5 149/7.9 187/10.5 209/12.8 222/14.3 230/16.5 235/17.0 240/19.6	053/7.7 119/8.1 163/10.1 191/12.6 210/14.3 221/16.5 229/17.0 235/19.6	042/7.7 103/8.3 149/10.8 180/12.6 202/14.3 215/16.5 224/19.0 232/19.6	039/7.9 098/8.3 145/10.8 176/12.6 199/14.3 213/16.5 223/19.0 231/19.6
25	7 032/33.1 069/41.9 110/33.1 143/33.1 169/33.1 186/33.1 200/33.1 211/33.1	033/32.5 072/33.1 112/33.1 145/33.1 171/33.1 186/33.1 200/33.1 211/33.1	037/41.9 074/29.9 120/29.9 152/29.9 173/29.9 193/29.9 205/29.9 215/29.9	064/25.1 136/24.2 167/24.2 206/24.2 217/24.2 231/24.2 241/24.2 248/26.2	081/15.5 136/15.5 167/15.5 206/15.5 217/15.5 231/15.5 241/15.5 248/15.5	146/10.1 183/12.1 205/13.4 219/15.7 224/16.5 231/17.5 237/23.3 243/26.2	216/7.0 241/11.2 244/12.6 245/13.7 245/15.0 245/17.5 245/20.9 245/20.9	200/7.0 244/7.5 252/10.1 252/13.4 251/15.3 251/17.5 248/17.5 248/20.3	135/7.1 180/7.7 232/10.5 242/12.6 244/15.0 245/17.0 245/17.5 246/20.3	084/7.7 168/8.3 206/10.5 222/12.6 231/14.3 236/16.5 242/17.0 242/19.6	056/8.1 138/8.5 184/8.7 206/12.6 220/14.3 228/16.5 233/17.0 238/19.6	043/8.1 121/8.7 159/9.0 196/12.6 212/14.3 222/16.5 229/19.0 234/19.6	039/8.3 115/8.7 165/9.0 192/12.6 209/14.3 222/16.5 227/19.0 233/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK BULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.30/9.2	.032/9.0	.039/10.1	.056/9.5	.093/8.3	.163/7.1	.225/6.3	.174/6.3	.103/7.0	.072/7.3	.059/7.5	.052/5.7	.050/5.7
	9	.050/12.1	.052/12.0	.062/11.6	.080/10.6	.114/9.3	.168/8.5	.208/7.9	.181/7.9	.135/8.1	.107/8.3	.090/8.5	.081/8.7	.078/8.7
	11	.050/13.4	.070/13.4	.078/13.1	.094/12.1	.119/11.2	.156/10.1	.183/9.5	.189/9.2	.141/9.2	.121/9.5	.108/10.1	.101/9.8	.098/9.8
	13	.077/16.6	.079/14.3	.086/13.7	.098/13.7	.116/12.6	.142/12.1	.161/11.6	.153/11.2	.137/11.6	.124/11.2	.114/11.2	.109/11.2	.107/11.2
	15	.080/15.7	.082/15.7	.087/15.3	.097/15.0	.110/14.6	.129/13.4	.142/12.6	.139/13.4	.128/13.1	.120/12.8	.113/12.6	.110/12.6	.108/12.6
	17	.080/17.5	.081/17.5	.086/17.0	.093/17.0	.103/16.5	.117/16.1	.127/15.7	.126/15.0	.119/14.6	.113/14.6	.109/14.3	.106/14.3	.105/14.3
	19	.078/19.6	.079/19.6	.082/19.0	.088/19.0	.095/18.5	.107/18.1	.115/17.7	.114/17.5	.110/17.0	.106/16.6	.103/16.5	.101/16.1	.101/16.1
10	21	.075/19.6	.076/19.6	.079/19.6	.083/19.0	.090/19.0	.098/18.5	.105/18.0	.104/17.5	.102/17.0	.099/17.0	.097/16.5	.096/16.5	.095/16.5
	7	.017/13.4	.019/12.8	.025/11.6	.038/11.6	.069/9.5	.142/7.9	.220/6.3	.186/6.3	.111/6.7	.071/7.3	.058/7.5	.054/5.7	.053/5.7
	9	.035/15.0	.037/14.6	.045/14.0	.061/12.6	.091/11.2	.146/9.4	.204/7.9	.193/7.5	.145/8.1	.110/8.5	.085/8.7	.084/8.7	.083/8.7
	11	.050/16.1	.053/15.7	.061/15.0	.076/13.7	.100/12.6	.139/11.2	.180/9.5	.178/9.2	.150/9.2	.128/9.5	.114/10.1	.107/10.1	.105/9.8
	13	.060/17.0	.062/17.0	.065/16.5	.081/15.3	.107/13.7	.124/12.5	.158/11.6	.160/11.2	.144/10.8	.130/11.2	.121/11.2	.116/11.2	.115/11.2
	15	.068/18.5	.068/18.0	.072/17.5	.082/16.5	.091/15.7	.118/13.7	.140/12.6	.140/13.4	.135/13.1	.126/12.8	.121/12.6	.117/12.6	.116/12.6
	17	.066/19.6	.068/19.6	.071/19.0	.080/18.5	.092/17.5	.109/16.5	.126/15.7	.130/15.0	.125/15.0	.120/14.6	.116/14.3	.114/14.3	.113/14.3
15	19	.065/21.7	.067/21.7	.071/20.9	.077/20.3	.087/19.0	.100/17.0	.113/15.7	.117/15.3	.115/15.0	.112/15.0	.110/15.0	.108/16.1	.108/16.1
	21	.064/22.4	.065/21.7	.069/21.7	.074/20.9	.082/19.6	.092/19.0	.103/18.0	.107/17.5	.106/17.0	.104/17.0	.103/16.5	.102/16.5	.102/16.5
	7	.023/20.3	.025/19.6	.032/17.5	.047/15.0	.075/12.6	.127/9.8	.201/7.5	.200/6.3	.128/6.7	.079/6.8	.058/7.3	.050/7.3	.048/5.7
	9	.037/20.3	.039/19.6	.046/17.5	.060/15.7	.085/13.7	.124/11.6	.177/9.5	.190/9.0	.167/9.2	.141/9.5	.123/10.1	.114/10.1	.111/10.1
	11	.046/20.3	.048/19.6	.055/19.0	.067/17.5	.087/14.6	.117/12.8	.156/11.6	.169/10.8	.158/10.8	.142/11.2	.131/11.2	.124/11.2	.122/11.2
	13	.051/20.9	.053/20.9	.059/20.3	.069/18.5	.086/17.0	.109/15.3	.139/12.6	.151/13.4	.145/13.1	.136/12.8	.129/12.6	.125/12.6	.124/12.6
	15	.054/22.4	.055/22.4	.060/21.7	.069/20.3	.083/16.5	.101/17.0	.124/15.7	.135/15.0	.133/15.0	.124/14.6	.124/14.3	.121/14.3	.121/14.3
20	17	.053/23.3	.056/23.3	.060/23.3	.068/21.7	.074/19.0	.094/17.5	.112/15.7	.122/15.3	.122/15.0	.119/16.5	.117/16.5	.115/16.1	.115/16.1
	19	.055/23.3	.056/23.3	.060/23.3	.068/21.7	.074/19.0	.094/17.5	.112/15.7	.122/15.3	.122/15.0	.119/16.5	.117/16.5	.115/16.1	.115/16.1
	21	.054/25.1	.056/24.2	.059/23.3	.065/22.4	.075/20.9	.097/19.6	.102/18.0	.111/17.5	.112/17.0	.111/17.0	.110/16.5	.109/16.5	.109/16.5
	7	.017/23.9	.016/26.2	.022/23.3	.034/19.0	.061/13.4	.101/9.2	.213/6.3	.214/6.5	.146/7.1	.093/7.3	.065/7.5	.053/7.7	.049/7.7
	9	.015/27.3	.016/26.2	.022/23.3	.034/19.0	.061/13.4	.102/10.8	.198/7.5	.225/7.0	.192/7.1	.152/7.7	.124/8.1	.105/8.1	.103/8.3
	11	.026/27.3	.028/26.2	.034/23.3	.047/19.0	.072/15.0	.112/12.1	.175/9.2	.204/8.7	.191/7.7	.163/10.5	.151/11.2	.136/8.7	.132/9.8
	13	.034/27.3	.036/26.2	.042/23.3	.054/19.0	.075/16.1	.108/13.4	.154/11.6	.180/10.8	.176/10.5	.163/10.5	.151/11.2	.143/11.2	.140/11.2
25	15	.040/27.3	.042/26.2	.047/23.3	.059/19.0	.076/18.0	.101/15.7	.137/12.6	.159/13.4	.160/13.1	.153/12.8	.146/12.6	.141/12.6	.139/12.6
	17	.043/27.3	.045/26.2	.050/23.3	.061/19.0	.074/19.0	.095/17.5	.123/15.7	.141/15.0	.144/15.0	.141/14.6	.137/14.3	.135/14.3	.134/14.3
	19	.045/27.3	.046/26.2	.051/23.3	.062/22.4	.071/20.3	.094/18.0	.111/15.7	.126/15.3	.131/15.0	.130/16.5	.128/16.5	.127/16.5	.126/16.1
	21	.046/27.3	.047/26.2	.051/23.3	.058/24.2	.068/22.4	.092/19.6	.101/18.0	.114/17.5	.119/17.0	.120/17.0	.119/16.5	.119/16.5	.118/16.5
	7	.008/8.1	.008/48.3	.008/37.0	.011/25.1	.030/16.5	.087/9.8	.210/6.3	.225/6.5	.159/7.1	.102/7.7	.070/7.9	.055/8.1	.051/8.1
	9	.010/41.9	.011/37.0	.014/29.9	.024/24.2	.049/16.5	.100/11.6	.197/7.5	.242/7.0	.219/7.7	.182/8.1	.153/8.3	.136/8.3	.130/8.5
	11	.017/33.1	.019/33.1	.024/29.9	.036/24.2	.059/16.5	.102/12.8	.174/9.2	.218/7.0	.217/7.7	.200/8.3	.182/8.5	.170/8.7	.166/8.7
30	13	.025/33.1	.026/33.1	.032/29.9	.043/24.2	.064/16.5	.099/16.1	.153/11.6	.191/10.1	.198/7.9	.191/8.3	.181/8.5	.174/8.7	.172/9.0
	15	.030/33.1	.032/33.1	.037/29.9	.048/24.2	.066/16.5	.094/16.1	.136/12.6	.168/13.4	.177/12.1	.175/11.6	.171/12.6	.167/12.6	.165/12.6
	17	.034/33.1	.036/33.1	.041/29.9	.050/24.2	.065/16.5	.094/16.1	.122/15.7	.148/15.0	.158/15.0	.159/14.6	.158/14.3	.156/14.3	.155/14.3
	19	.036/33.1	.038/33.1	.042/29.9	.050/24.2	.064/16.5	.093/16.1	.110/15.7	.132/15.3	.142/15.0	.145/16.5	.145/16.5	.144/16.1	.144/16.1
	21	.038/33.1	.039/33.1	.041/29.9	.050/24.2	.062/23.3	.078/20.3	.100/18.0	.119/17.5	.128/17.0	.132/17.0	.133/16.5	.133/16.5	.133/16.5
	7	.017/23.9	.016/26.2	.022/23.3	.034/19.0	.061/13.4	.101/9.2	.213/6.3	.214/6.5	.146/7.1	.093/7.3	.065/7.5	.053/7.7	.049/7.7
	9	.015/27.3	.016/26.2	.022/23.3	.034/19.0	.061/13.4	.102/10.8	.198/7.5	.225/7.0	.192/7.1	.152/7.7	.124/8.1	.105/8.1	.103/8.3
35	11	.026/27.3	.028/26.2	.034/23.3	.047/19.0	.072/15.0	.112/12.1	.175/9.2	.204/8.7	.191/7.7	.163/10.5	.151/11.2	.136/8.7	.132/9.8
	13	.034/27.3	.036/26.2	.042/23.3	.054/19.0	.075/16.1	.108/13.4	.154/11.6	.180/10.8	.176/10.5	.163/10.5	.151/11.2	.143/11.2	.140/11.2
	15	.040/27.3	.042/26.2	.047/23.3	.059/19.0	.076/18.0	.101/15.7	.137/12.6	.159/13.4	.160/13.1	.153/12.8	.146/12.6	.141/12.6	.139/12.6
	17	.043/27.3	.045/26.2	.050/23.3	.061/19.0	.074/19.0	.095/17.5	.123/15.7	.141/15.0	.144/15.0	.141/14.6	.137/14.3	.135/14.3	.134/14.3
	19	.045/27.3	.046/26.2	.051/23.3	.062/22.4	.071/20.3	.094/18.0	.111/15.7	.126/15.3	.131/15.0	.130/16.5	.128/16.5	.127/16.5	.126/16.1
	21	.046/27.3	.047/26.2	.051/23.3	.058/24.2	.068/22.4	.092/19.6	.101/18.0	.114/17.5	.119/17.0	.120/17.0	.119/16.5	.119/16.5	.118/16.5
	7	.008/8.1	.008/48.3	.008/37.0	.011/25.1	.030/16.5	.087/9.8	.210/6.3	.225/6.5	.159/7.1	.102/7.7	.070/7.9	.055/8.1	.051/8.1
40	9	.010/41.9	.011/37.0	.014/29.9	.024/24.2	.049/16.5	.100/11.6	.197/7.5	.242/7.0	.219/7.7	.182/8.1	.153/8.3	.136/8.3	.130/8.5
	11	.017/33.1	.019/33.1	.024/29.9	.036/24.2	.059/16.5	.102/12.8	.174/9.2	.218/7.0	.217/7.7	.200/8.3	.182/8.5	.170/8.7	.166/8.7
	13	.025/33.1	.026/33.1	.032/29.9	.043/24.2	.064/16.5	.099/16.1	.153/11.6	.191/10.1	.198/7.9	.191/8.3	.181/8.5	.174/8.7	.172/9.0
	15	.030/33.1	.032/33.1	.037/29.9	.048/24.2	.066/16.5	.094/16.1	.136/12.6	.168/13.4	.177/12.1	.175/11.6	.171/12.6	.167/12.6	.165/12.6
	17	.034/33.1	.036/33.1	.041/29.9	.050/24.2	.065/16.5	.094/16.1	.122/15.7	.148/15.0	.158/15.0	.159/14.6	.158/14.3	.156/14.3	.155/14.3
	19	.036/33.1	.038/33.1	.042/29.9	.050/24.2	.064/16.5	.093/16.1	.110/15.7	.132/15.3	.142/15.0	.145/16.5	.145/16.5	.144/16.1	.144/16.1
	21	.038/33.1	.039/33.1	.041/29.9	.050/24.2	.062/23.3	.078/20.3	.100/18.0	.119/17.5	.128/17.0	.132/17.0	.133/16.5	.133/16.5	.133/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS VEH ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)
HELICOPTER DECK HULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.063/9.2	.069/9.0	.086/8.5	.129/9.2	.238/8.3	.437/6.7	.743/5.7	.550/5.7	.309/6.7	.226/6.8	.192/5.2	.173/5.7	.167/5.7	
	9	.086/12.1	.092/11.6	.113/11.2	.157/10.5	.244/9.2	.434/7.5	.606/6.3	.506/7.0	.352/7.7	.275/7.9	.234/8.1	.212/8.3	.206/8.3	
	11	.103/13.1	.109/12.6	.127/12.2	.163/11.6	.231/10.1	.394/8.3	.478/7.0	.324/7.5	.229/8.3	.275/8.7	.244/9.0	.226/9.0	.220/9.0	
	13	.108/13.4	.113/13.4	.128/13.1	.156/12.6	.206/11.2	.296/9.5	.382/7.9	.350/8.3	.289/9.0	.253/9.5	.231/10.1	.218/10.1	.214/10.1	
	15	.106/14.6	.109/14.6	.121/14.3	.143/13.7	.160/12.6	.246/11.6	.310/9.2	.290/9.2	.249/9.8	.225/10.5	.210/11.2	.200/11.2	.197/11.2	
	17	.099/15.7	.102/15.7	.111/15.3	.128/15.0	.157/14.6	.207/12.8	.256/11.6	.243/12.1	.214/11.6	.197/11.6	.187/11.6	.180/12.6	.178/12.1	
	19	.091/17.5	.094/16.1	.101/15.7	.115/15.3	.137/14.6	.177/13.1	.215/12.6	.206/12.1	.185/13.1	.173/12.8	.165/12.6	.159/12.6	.157/12.6	
10	7	.083/17.5	.085/17.5	.091/17.0	.102/17.0	.121/15.0	.152/14.3	.183/14.0	.177/13.4	.161/13.1	.152/13.1	.146/12.8	.142/14.3	.141/14.0	
	9	.025/13.4	.028/12.8	.039/11.6	.067/11.2	.146/9.5	.395/7.3	.722/5.7	.619/6.3	.360/6.3	.242/6.8	.216/5.7	.206/5.7	.203/5.7	
	11	.045/15.0	.049/14.6	.064/13.7	.097/12.6	.170/10.5	.346/8.3	.592/6.3	.571/6.3	.411/7.5	.311/8.1	.272/8.3	.257/8.3	.253/8.3	
	13	.061/16.1	.066/15.7	.080/14.5	.110/13.4	.169/11.6	.294/9.5	.479/7.0	.474/6.7	.382/8.3	.317/8.7	.286/9.2	.272/9.0	.268/9.0	
	15	.069/17.0	.073/16.5	.085/15.3	.110/14.3	.156/12.6	.247/11.2	.375/7.9	.388/8.1	.332/9.0	.292/9.5	.272/10.1	.262/10.1	.259/10.1	
	17	.070/17.5	.074/17.0	.084/16.5	.104/15.3	.150/13.4	.209/12.1	.326/9.0	.320/9.0	.259/9.8	.235/10.5	.246/10.1	.240/11.2	.238/11.2	
	19	.068/18.5	.071/18.0	.080/17.5	.096/16.5	.125/14.6	.178/13.4	.252/11.6	.266/12.1	.243/11.6	.227/11.6	.219/11.6	.215/12.6	.214/12.1	
15	7	.065/19.6	.067/19.6	.074/19.0	.088/17.7	.111/15.7	.153/14.6	.211/12.6	.225/12.1	.209/13.1	.198/12.8	.193/12.6	.191/12.6	.190/12.6	
	9	.020/20.3	.022/19.6	.028/19.0	.035/18.5	.098/17.5	.132/15.0	.180/14.0	.192/13.4	.181/13.1	.173/13.1	.170/12.8	.169/14.3	.168/14.0	
	11	.032/20.3	.035/19.6	.041/19.0	.048/18.5	.119/17.5	.189/15.3	.208/12.6	.247/12.1	.243/13.1	.233/12.8	.226/12.6	.223/12.6	.222/12.6	
	13	.035/20.3	.038/19.6	.044/19.0	.051/18.5	.125/16.5	.194/14.6	.217/12.6	.256/12.1	.251/13.1	.241/12.8	.234/12.6	.231/12.6	.230/12.6	
	15	.042/20.3	.045/19.6	.051/19.0	.058/18.5	.130/16.5	.200/14.6	.224/12.6	.263/12.1	.258/13.1	.248/12.8	.241/12.6	.238/12.6	.237/12.6	
	17	.046/21.7	.049/20.9	.056/20.3	.062/19.6	.100/15.7	.153/14.0	.208/12.6	.247/12.1	.243/13.1	.233/12.8	.226/12.6	.223/12.6	.222/12.6	
	19	.045/22.4	.047/22.4	.054/21.7	.061/21.6	.090/17.0	.133/15.3	.208/12.6	.247/12.1	.243/13.1	.233/12.8	.226/12.6	.223/12.6	.222/12.6	
20	7	.043/23.3	.045/22.4	.051/21.7	.058/21.6	.091/18.5	.119/15.3	.177/14.0	.210/13.4	.209/13.1	.203/12.8	.198/14.3	.197/14.3	.196/14.0	
	9	.014/6.8	.010/28.6	.009/23.3	.007/19.0	.059/13.4	.221/8.7	.690/5.7	.758/6.3	.532/6.7	.350/7.3	.255/7.5	.217/7.7	.208/7.7	
	11	.013/27.3	.013/26.2	.014/23.3	.015/19.0	.093/13.4	.220/9.8	.571/6.3	.722/6.5	.534/7.1	.351/7.5	.252/7.9	.217/7.9	.208/7.7	
	13	.019/27.3	.021/26.2	.028/23.3	.047/19.0	.092/14.6	.199/11.2	.454/7.0	.597/6.5	.574/7.1	.507/7.7	.451/8.1	.418/8.3	.408/8.3	
	15	.025/27.3	.027/26.2	.035/23.3	.053/19.0	.091/15.3	.175/12.6	.364/7.5	.484/6.7	.486/7.1	.452/7.7	.419/8.1	.399/8.3	.392/8.3	
	17	.029/27.3	.031/26.2	.038/23.3	.054/19.0	.087/17.0	.153/13.4	.296/8.7	.394/6.7	.406/7.1	.389/7.7	.370/8.1	.359/10.1	.355/10.8	
	19	.031/27.3	.032/26.2	.039/23.3	.054/19.0	.090/18.0	.133/14.6	.245/11.6	.325/6.7	.341/7.1	.333/7.7	.323/11.2	.316/11.2	.313/11.2	
25	7	.031/27.3	.032/26.2	.039/23.3	.051/20.9	.073/18.5	.117/15.7	.206/12.6	.272/6.7	.288/7.1	.265/11.2	.280/11.2	.276/12.6	.274/12.6	
	9	.031/27.3	.032/26.2	.037/23.3	.048/22.4	.067/19.0	.103/17.5	.179/14.0	.231/6.7	.246/7.1	.246/11.6	.244/12.6	.241/12.6	.241/12.6	
	11	.025/7.1	.025/6.7	.022/6.3	.011/24.2	.035/16.5	.171/9.5	.679/5.7	.759/6.3	.599/7.1	.396/7.5	.283/7.7	.231/7.9	.217/7.9	
	13	.015/37.0	.017/34.9	.015/29.9	.020/24.2	.056/15.5	.178/10.8	.584/6.3	.799/6.7	.758/7.1	.643/7.9	.550/8.1	.493/8.3	.475/8.3	
	15	.013/33.1	.015/33.1	.018/29.9	.024/24.2	.066/16.5	.167/12.1	.449/7.0	.664/7.0	.693/7.7	.650/8.1	.603/8.5	.569/8.5	.557/8.5	
	17	.015/33.1	.017/33.1	.022/29.9	.035/24.2	.068/16.5	.150/13.1	.399/7.5	.537/7.0	.584/7.7	.576/8.1	.555/8.5	.538/8.7	.531/8.7	
	19	.018/33.1	.020/33.1	.025/29.9	.038/24.2	.067/16.5	.133/14.0	.293/8.5	.436/7.0	.485/7.7	.491/8.1	.485/8.5	.476/8.7	.473/8.7	
	7	.020/33.1	.022/33.1	.027/29.9	.039/24.2	.063/16.5	.117/15.0	.242/11.6	.359/7.0	.404/7.7	.416/8.1	.416/8.5	.413/8.7	.412/8.7	
	9	.021/33.1	.023/33.1	.028/29.9	.039/24.2	.059/16.5	.103/16.5	.204/12.6	.299/7.0	.340/7.7	.354/8.1	.357/8.5	.354/8.7	.354/8.7	
	11	.021/33.1	.023/33.1	.027/29.9	.037/24.2	.055/16.5	.091/18.0	.173/14.0	.253/7.0	.289/7.7	.303/8.3	.308/8.5	.309/8.7	.309/8.7	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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[illegible]

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SHORTCRESTED
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.031/10.5	.033/9.0	.038/8.7	.044/8.7	.050/7.1	.054/7.1	.056/6.7	.057/6.7	.054/6.8	.050/7.0	.046/7.1	.042/7.3	.040/7.3	
9	9	.050/11.6	.050/11.6	.052/11.5	.055/11.2	.058/10.8	.061/9.7	.064/8.1	.066/8.1	.067/8.1	.067/8.1	.067/8.3	.066/8.3	.066/8.3	
11	11	.061/12.6	.061/12.6	.060/12.6	.059/12.6	.059/12.6	.062/11.6	.062/9.8	.066/9.2	.069/9.0	.072/9.0	.075/9.2	.076/9.2	.077/9.2	
13	13	.064/13.4	.063/13.4	.061/13.4	.059/13.4	.057/13.1	.050/11.6	.057/11.6	.061/10.5	.065/10.1	.070/10.1	.074/10.1	.077/10.1	.078/10.1	
15	15	.062/14.3	.061/14.3	.059/14.3	.056/14.3	.052/13.3	.045/13.4	.045/13.4	.048/12.6	.053/12.6	.058/12.6	.063/12.6	.066/12.6	.067/12.6	
17	17	.058/15.7	.057/15.7	.055/15.7	.051/15.3	.047/15.0	.045/14.3	.040/14.6	.043/13.7	.047/13.1	.052/13.1	.057/13.1	.060/13.1	.061/13.1	
19	19	.053/16.1	.052/16.1	.050/16.1	.046/15.7	.042/15.7	.040/15.3	.035/15.3	.038/14.6	.042/14.3	.047/14.3	.051/14.3	.054/14.3	.055/14.3	
21	21	.049/17.5	.048/17.5	.045/17.5	.042/17.5	.038/17.0	.035/16.5	.032/16.5	.035/15.3	.038/14.6	.042/14.3	.047/14.3	.051/14.3	.052/14.3	
10	7	.026/12.8	.029/12.8	.033/12.8	.039/12.8	.045/12.0	.049/11.6	.052/11.0	.053/11.0	.051/11.0	.048/11.0	.044/11.0	.041/11.0	.040/11.0	
9	9	.045/14.6	.045/14.6	.047/14.3	.050/14.3	.053/14.0	.057/14.0	.062/13.0	.062/12.0	.067/11.0	.069/11.0	.078/11.0	.081/11.0	.082/11.0	
11	11	.058/15.3	.056/15.0	.055/15.0	.055/15.0	.055/15.0	.057/14.3	.061/13.0	.066/12.0	.071/11.0	.075/11.0	.081/11.0	.081/11.0	.082/11.0	
13	13	.059/16.1	.059/16.1	.057/16.1	.055/16.1	.053/16.1	.053/15.0	.056/14.3	.061/13.0	.067/12.0	.073/12.0	.077/12.0	.081/12.0	.082/12.0	
15	15	.058/17.0	.057/17.0	.055/17.0	.052/17.0	.049/16.5	.045/16.1	.040/15.3	.048/15.0	.055/14.3	.061/13.0	.067/12.0	.073/12.0	.077/12.0	
17	17	.054/17.5	.054/17.5	.051/17.5	.048/17.0	.045/16.5	.041/16.1	.036/15.3	.044/15.0	.051/14.3	.057/13.0	.063/12.0	.069/12.0	.070/12.0	
19	19	.050/18.5	.049/18.0	.047/18.0	.043/18.0	.040/17.5	.038/17.0	.034/16.5	.043/15.7	.050/14.3	.056/13.0	.062/12.0	.068/12.0	.069/12.0	
21	21	.046/19.0	.045/19.0	.043/19.0	.039/18.5	.036/18.0	.033/17.5	.030/17.0	.038/16.5	.045/15.0	.052/14.3	.058/13.0	.064/12.0	.065/12.0	
15	7	.023/14.3	.025/14.3	.030/14.3	.035/14.3	.040/14.3	.044/13.0	.047/12.0	.048/12.0	.047/12.0	.044/12.0	.041/12.0	.038/12.0	.037/12.0	
9	9	.041/17.5	.041/17.5	.043/17.5	.045/17.5	.049/17.0	.054/16.0	.058/15.0	.063/14.0	.066/13.0	.069/12.0	.074/11.0	.078/11.0	.079/11.0	
11	11	.051/20.3	.051/20.3	.051/20.3	.051/20.3	.052/20.3	.054/19.0	.055/17.5	.061/16.0	.067/15.0	.073/14.0	.079/13.0	.083/12.0	.084/12.0	
13	13	.055/20.3	.054/20.3	.053/20.3	.051/20.3	.050/20.3	.051/19.0	.055/17.5	.061/16.0	.067/15.0	.073/14.0	.079/13.0	.083/12.0	.084/12.0	
15	15	.054/20.3	.053/20.3	.051/20.3	.048/20.3	.046/20.3	.045/19.0	.049/17.5	.055/16.0	.061/15.0	.067/14.0	.073/13.0	.079/12.0	.079/12.0	
17	17	.051/20.3	.050/20.3	.048/20.3	.045/20.3	.042/20.3	.041/19.0	.044/17.5	.049/16.0	.055/15.0	.061/14.0	.067/13.0	.073/12.0	.073/12.0	
19	19	.047/20.3	.046/20.3	.044/20.3	.041/20.3	.038/20.3	.037/20.3	.034/19.0	.043/18.0	.049/17.0	.055/16.0	.061/15.0	.067/14.0	.068/14.0	
21	21	.043/20.3	.042/20.3	.040/20.3	.037/20.3	.034/20.3	.033/20.3	.030/19.0	.038/18.0	.043/17.0	.049/16.0	.055/15.0	.061/14.0	.062/14.0	
20	7	.021/13.4	.023/13.4	.027/13.4	.032/13.4	.036/13.4	.040/13.0	.042/12.0	.043/12.0	.042/12.0	.039/12.0	.036/12.0	.033/12.0	.032/12.0	
9	9	.037/23.3	.039/23.3	.043/23.3	.047/23.3	.051/23.3	.054/23.0	.057/23.0	.063/22.0	.067/21.0	.073/20.0	.079/19.0	.083/18.0	.084/18.0	
11	11	.047/23.3	.047/23.3	.047/23.3	.047/23.3	.047/23.3	.047/23.3	.047/23.3	.053/22.0	.059/21.0	.065/20.0	.071/19.0	.077/18.0	.078/18.0	
13	13	.050/26.2	.050/26.2	.049/26.2	.048/26.2	.047/26.2	.046/26.2	.046/26.2	.053/25.0	.059/24.0	.065/23.0	.071/22.0	.077/21.0	.078/21.0	
15	15	.051/26.2	.050/26.2	.049/26.2	.048/26.2	.047/26.2	.046/26.2	.046/26.2	.053/25.0	.059/24.0	.065/23.0	.071/22.0	.077/21.0	.078/21.0	
17	17	.047/26.2	.047/26.2	.045/26.2	.042/26.2	.040/26.2	.040/26.2	.042/26.2	.048/25.0	.055/24.0	.061/23.0	.067/22.0	.073/21.0	.074/21.0	
19	19	.044/26.2	.043/26.2	.041/26.2	.038/26.2	.036/26.2	.035/26.2	.033/26.2	.040/25.0	.046/24.0	.052/23.0	.058/22.0	.064/21.0	.065/21.0	
21	21	.040/26.2	.039/26.2	.037/26.2	.035/26.2	.032/26.2	.031/26.2	.031/26.2	.037/25.0	.043/24.0	.049/23.0	.055/22.0	.061/21.0	.062/21.0	
25	7	.020/16.5	.022/16.5	.025/16.5	.030/16.5	.034/16.5	.037/16.5	.039/16.5	.039/16.5	.037/16.5	.035/16.5	.031/16.5	.028/16.5	.027/16.5	
9	9	.035/16.5	.036/16.5	.037/16.5	.039/16.5	.043/16.5	.047/16.5	.051/16.5	.055/16.5	.058/16.5	.060/16.5	.061/16.5	.062/16.5	.062/16.5	
11	11	.045/16.5	.044/16.5	.044/16.5	.044/16.5	.046/16.5	.049/16.5	.054/16.5	.058/16.5	.062/16.5	.065/16.5	.069/16.5	.073/16.5	.074/16.5	
13	13	.048/16.5	.047/16.5	.046/16.5	.045/16.5	.045/16.5	.046/16.5	.049/16.5	.054/16.5	.058/16.5	.062/16.5	.065/16.5	.069/16.5	.070/16.5	
15	15	.047/16.5	.046/16.5	.045/16.5	.044/16.5	.044/16.5	.045/16.5	.048/16.5	.053/16.5	.057/16.5	.061/16.5	.064/16.5	.068/16.5	.069/16.5	
17	17	.044/16.5	.043/16.5	.042/16.5	.041/16.5	.041/16.5	.042/16.5	.045/16.5	.050/16.5	.054/16.5	.058/16.5	.061/16.5	.065/16.5	.066/16.5	
19	19	.041/16.5	.040/16.5	.039/16.5	.038/16.5	.038/16.5	.039/16.5	.042/16.5	.047/16.5	.051/16.5	.055/16.5	.058/16.5	.062/16.5	.063/16.5	
21	21	.038/16.5	.037/16.5	.036/16.5	.035/16.5	.035/16.5	.036/16.5	.039/16.5	.044/16.5	.048/16.5	.052/16.5	.055/16.5	.059/16.5	.060/16.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS DUAL VALUE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
 RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
 CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM BL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.022/ 9.8	.029/ 9.5	.042/ 9.5	.056/ 8.3	.066/ 7.9	.072/ 7.9	.074/ 7.9	.071/ 7.9	.064/ 7.9	.053/ 7.9	.039/ 7.7	.025/ 7.7	.017/ 7.9
9	9	.047/11.6	.055/11.2	.072/10.5	.089/10.5	.103/10.1	.111/10.1	.113/10.1	.107/10.1	.096/10.1	.083/10.1	.061/10.1	.043/10.1	.034/10.1
11	11	.072/13.4	.080/13.1	.099/12.8	.119/12.6	.135/12.1	.145/12.1	.146/12.1	.140/11.6	.126/11.6	.106/11.6	.084/11.6	.064/11.6	.055/11.6
13	13	.091/15.3	.099/15.0	.119/14.6	.139/14.6	.159/14.1	.170/14.0	.172/14.0	.165/13.7	.150/13.4	.128/13.4	.104/13.4	.083/13.1	.074/13.1
15	15	.106/17.0	.114/16.5	.135/16.5	.158/16.1	.178/16.1	.189/16.1	.192/15.7	.184/15.3	.168/15.3	.145/15.0	.120/15.0	.098/14.8	.089/14.8
17	17	.115/19.0	.124/18.5	.145/18.5	.169/18.0	.189/18.0	.201/17.5	.204/17.5	.196/17.5	.180/17.0	.157/17.0	.131/17.0	.109/17.0	.099/16.5
19	19	.120/19.6	.129/19.6	.150/19.0	.175/19.0	.199/19.0	.208/19.0	.211/18.5	.204/18.5	.187/18.0	.164/18.0	.138/18.0	.116/18.0	.106/19.0
21	21	.124/21.7	.133/21.7	.154/21.7	.178/20.9	.199/20.9	.212/20.9	.215/20.9	.208/20.3	.192/20.3	.169/20.3	.143/20.3	.121/19.6	.112/19.6
10	7	.027/10.1	.034/10.1	.047/ 9.8	.060/ 9.6	.070/ 8.3	.075/ 8.3	.076/ 8.3	.073/ 8.1	.064/ 7.9	.053/ 7.9	.038/ 7.9	.024/ 7.9	.016/ 7.9
11	9	.054/13.4	.062/13.1	.078/12.1	.096/11.2	.109/10.8	.116/10.5	.116/10.5	.109/10.1	.097/10.1	.079/10.1	.059/ 9.8	.040/ 9.8	.031/ 9.8
13	11	.080/15.3	.088/14.6	.106/13.3	.126/11.2	.141/10.8	.149/12.6	.149/12.6	.141/12.1	.125/12.1	.104/11.6	.080/11.6	.059/11.6	.050/11.6
15	13	.100/16.5	.108/16.5	.128/15.7	.149/15.7	.166/15.0	.174/15.0	.174/15.0	.165/14.0	.147/13.7	.124/13.4	.099/13.4	.077/13.1	.067/13.1
17	15	.114/18.5	.123/18.0	.143/17.5	.165/17.0	.183/16.5	.193/16.5	.193/16.5	.183/15.7	.165/15.3	.144/15.0	.114/15.0	.092/15.0	.082/15.0
19	17	.123/19.6	.132/19.6	.152/19.0	.175/18.5	.194/18.0	.204/18.5	.205/17.5	.195/17.5	.177/17.0	.152/17.0	.125/17.0	.102/17.0	.093/17.0
21	19	.128/20.9	.137/20.9	.157/20.9	.181/20.3	.200/19.6	.211/19.6	.211/19.6	.202/19.0	.184/19.0	.159/19.0	.132/19.0	.110/19.6	.100/19.6
15	21	.131/22.4	.140/22.4	.160/21.7	.184/21.7	.203/20.9	.214/20.9	.216/20.9	.207/20.3	.189/20.3	.164/20.3	.138/20.3	.115/19.6	.106/19.6
20	7	.060/89.8	.063/89.8	.070/89.8	.077/ 9.2	.082/ 9.2	.084/ 9.0	.082/ 9.0	.076/ 8.7	.066/ 8.5	.053/ 8.1	.038/ 7.9	.023/ 7.9	.015/ 8.1
9	9	.072/17.5	.078/17.5	.092/17.5	.107/12.1	.118/12.1	.123/11.6	.121/10.5	.112/10.1	.098/10.1	.079/10.1	.058/ 9.8	.038/ 9.5	.029/ 9.5
11	11	.094/17.5	.101/17.5	.119/17.5	.137/15.3	.150/14.3	.156/13.1	.154/12.8	.143/12.6	.125/12.1	.102/12.1	.077/11.6	.056/11.6	.046/11.6
13	13	.113/19.6	.121/19.6	.139/17.5	.159/17.5	.174/15.7	.181/15.7	.178/15.3	.166/14.3	.146/14.0	.121/13.7	.094/13.4	.072/13.4	.062/13.1
15	15	.126/20.3	.134/20.3	.153/19.6	.175/18.5	.191/17.5	.198/17.0	.196/17.0	.184/15.7	.163/15.7	.137/15.3	.109/15.3	.086/15.0	.076/15.0
17	17	.134/20.9	.142/20.9	.161/20.3	.183/20.3	.200/19.6	.209/18.5	.207/18.0	.195/18.0	.174/17.5	.147/17.5	.119/17.0	.096/17.0	.086/17.0
19	19	.138/22.4	.146/22.4	.166/21.7	.188/20.9	.205/20.9	.214/20.3	.213/20.3	.201/19.6	.181/19.6	.155/19.6	.127/19.6	.104/19.6	.094/19.6
21	21	.141/26.2	.149/23.3	.169/23.3	.191/22.4	.209/22.4	.218/20.9	.217/20.9	.206/20.9	.186/20.3	.160/20.3	.132/20.3	.110/20.3	.100/19.6
20	7	.122/22.4	.122/22.4	.123/22.4	.124/22.4	.122/21.3	.115/13.4	.104/13.4	.088/13.4	.071/ 9.5	.054/ 9.2	.037/ 7.9	.022/ 7.9	.014/ 8.1
9	9	.119/19.0	.122/19.0	.130/19.0	.139/19.0	.143/19.0	.142/19.0	.134/19.0	.126/10.5	.101/10.5	.078/10.1	.057/ 9.8	.037/ 9.5	.027/ 9.5
11	11	.127/23.3	.133/23.3	.146/19.0	.160/19.0	.169/19.0	.170/19.0	.163/14.6	.148/13.4	.126/12.1	.101/12.1	.075/11.6	.052/11.6	.043/11.6
13	13	.134/23.3	.145/23.3	.161/23.3	.174/23.3	.189/19.0	.192/19.0	.185/15.7	.169/15.3	.146/14.6	.119/14.0	.091/13.7	.067/13.4	.058/13.4
15	15	.148/23.3	.155/23.3	.172/23.3	.190/23.3	.203/19.0	.209/19.0	.202/19.0	.186/16.5	.162/15.7	.134/15.7	.104/15.3	.081/15.0	.071/15.0
17	17	.153/23.3	.160/23.3	.178/23.3	.197/23.3	.211/23.3	.216/19.0	.211/19.0	.194/19.0	.172/17.5	.144/17.5	.114/17.0	.090/17.0	.081/17.0
19	19	.155/26.2	.163/26.2	.181/23.3	.200/23.3	.215/23.3	.221/20.3	.217/20.3	.202/20.3	.179/19.6	.151/19.6	.122/19.6	.098/19.6	.088/19.6
21	21	.157/26.2	.164/26.2	.182/23.3	.202/23.3	.218/23.3	.224/23.3	.220/23.3	.206/20.9	.184/20.9	.156/20.3	.127/20.3	.104/20.3	.095/20.3
25	7	.158/16.5	.159/16.5	.164/16.5	.167/16.5	.166/16.5	.156/16.5	.138/16.5	.113/16.5	.085/16.5	.058/16.5	.037/ 7.7	.021/ 7.9	.013/ 8.1
9	9	.182/16.5	.184/16.5	.188/16.5	.191/16.5	.190/16.5	.181/16.5	.162/16.5	.137/16.5	.109/16.5	.081/16.5	.056/10.1	.035/ 9.5	.026/ 9.5
11	11	.193/29.9	.196/29.9	.203/16.5	.209/16.5	.210/16.5	.202/16.5	.185/16.5	.161/16.5	.131/16.5	.101/12.1	.073/12.1	.050/11.6	.040/11.6
13	13	.198/24.2	.202/24.2	.211/24.2	.220/24.2	.223/24.2	.218/24.2	.205/16.5	.179/16.5	.149/16.5	.118/14.0	.088/13.7	.064/13.7	.054/13.7
15	15	.199/29.9	.204/29.9	.215/24.2	.226/24.2	.234/24.2	.234/24.2	.215/16.5	.192/16.5	.163/16.5	.131/16.5	.100/15.3	.076/15.0	.066/15.0
17	17	.197/29.9	.202/29.9	.213/29.9	.223/29.9	.236/24.2	.236/24.2	.200/18.0	.172/18.0	.147/17.5	.117/17.5	.085/17.0	.057/17.0	.047/17.0
19	19	.194/29.9	.200/29.9	.213/29.9	.227/29.9	.236/24.2	.236/24.2	.205/20.3	.178/20.3	.147/19.6	.117/19.6	.093/19.6	.063/19.6	.053/19.6
21	21	.191/29.9	.197/29.9	.211/29.9	.226/29.9	.236/24.2	.236/24.2	.209/24.2	.182/20.3	.152/20.3	.122/20.3	.094/20.3	.064/20.3	.054/20.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 255.6 FT FORWARD OF AP AND 19.8 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.016/9.5	.023/9.5	.035/7.9	.048/7.5	.058/7.5	.064/7.5	.066/7.3	.064/7.3	.058/7.3	.048/7.3	.036/7.3	.023/7.5	.015/7.7
	9	.028/10.8	.034/10.5	.047/10.1	.061/10.1	.071/10.1	.078/10.1	.080/9.8	.077/9.8	.070/9.8	.066/10.8	.052/10.8	.031/9.8	.024/10.1
	11	.037/12.8	.042/12.6	.055/12.1	.068/11.6	.079/11.2	.086/11.2	.088/10.8	.085/10.8	.077/10.5	.066/10.8	.052/10.8	.039/10.8	.033/10.8
	13	.042/14.3	.047/14.0	.059/13.7	.071/13.4	.082/13.1	.089/12.8	.091/12.6	.088/12.6	.080/12.6	.069/12.1	.056/12.1	.044/12.6	.039/12.6
	15	.044/15.7	.049/15.3	.059/15.3	.072/15.0	.082/14.6	.088/14.6	.090/14.3	.088/14.0	.081/14.0	.070/14.0	.058/14.0	.047/14.0	.042/14.3
	17	.046/17.0	.048/17.0	.056/16.5	.070/16.5	.079/16.1	.086/16.1	.088/15.7	.085/15.7	.079/15.3	.069/15.3	.057/15.0	.047/15.0	.043/15.0
10	7	.041/19.6	.045/19.0	.053/19.0	.063/19.0	.072/18.5	.077/18.5	.079/18.5	.077/18.0	.071/18.0	.063/18.0	.053/17.5	.045/17.5	.041/17.5
	9	.028/12.6	.035/12.1	.048/10.5	.062/10.1	.073/10.1	.079/10.1	.081/9.8	.078/9.8	.070/9.8	.066/9.2	.052/9.2	.031/9.0	.024/9.7
	11	.037/14.3	.043/14.3	.056/13.4	.069/12.6	.080/12.1	.087/11.6	.089/11.2	.085/11.2	.077/11.2	.065/10.8	.051/10.8	.038/11.2	.032/11.2
	13	.042/15.7	.047/15.7	.059/15.0	.072/14.3	.082/13.7	.089/13.4	.091/13.4	.088/12.6	.080/12.6	.069/12.6	.055/12.6	.043/12.6	.038/12.6
	15	.044/17.5	.048/17.0	.056/16.5	.070/16.5	.079/16.1	.086/16.1	.088/15.0	.085/15.0	.078/15.0	.068/14.0	.057/14.0	.046/14.0	.041/14.3
	17	.046/18.5	.048/18.5	.056/17.5	.070/17.5	.079/17.0	.086/17.0	.088/16.5	.085/16.5	.078/16.5	.068/15.3	.057/15.3	.046/15.0	.042/15.0
15	7	.043/19.6	.047/19.6	.056/18.5	.066/18.5	.076/18.0	.082/17.5	.084/17.5	.081/17.0	.075/17.0	.066/17.0	.055/17.0	.046/17.0	.042/17.0
	9	.041/20.9	.045/20.9	.053/20.3	.063/19.6	.071/19.6	.077/19.0	.079/19.0	.077/18.5	.071/18.0	.063/18.0	.053/18.0	.044/18.0	.041/18.0
	11	.019/14.3	.025/14.3	.038/9.0	.050/8.7	.060/8.5	.066/8.3	.067/7.9	.065/7.5	.058/7.5	.048/7.5	.036/7.3	.022/7.5	.015/7.7
	13	.029/17.5	.036/14.3	.049/12.1	.063/10.1	.074/10.1	.080/10.1	.082/9.8	.079/9.8	.071/9.5	.059/9.2	.045/9.2	.031/9.0	.024/9.2
	15	.037/17.5	.043/17.5	.056/14.3	.069/12.6	.081/12.6	.087/12.1	.089/11.6	.086/11.2	.078/11.2	.065/10.8	.051/10.8	.038/10.8	.032/10.8
	17	.042/19.6	.047/19.6	.059/17.5	.072/17.5	.082/16.5	.089/16.1	.091/15.7	.088/15.0	.080/14.6	.069/14.0	.055/14.0	.043/14.0	.037/12.8
20	7	.043/20.3	.048/20.3	.058/19.6	.070/19.6	.079/19.0	.086/19.0	.088/18.5	.085/18.5	.078/18.5	.068/18.5	.056/18.5	.046/18.5	.041/18.5
	9	.046/20.9	.048/20.9	.056/20.3	.066/19.6	.076/19.0	.082/19.0	.084/18.5	.081/18.5	.075/18.5	.066/18.5	.055/18.5	.046/18.5	.041/18.5
	11	.042/20.9	.046/20.9	.056/20.3	.066/19.6	.076/19.0	.082/19.0	.084/18.5	.081/18.5	.075/18.5	.066/18.5	.055/18.5	.046/18.5	.041/18.5
	13	.041/22.4	.044/22.4	.053/20.9	.063/20.3	.071/20.3	.077/20.3	.079/19.6	.076/19.6	.071/19.0	.062/18.0	.053/18.0	.044/19.0	.040/19.6
	15	.022/13.4	.028/13.4	.040/13.4	.052/13.4	.061/13.4	.067/9.5	.069/7.1	.066/7.1	.059/7.1	.049/7.1	.036/7.3	.022/7.5	.014/7.7
	17	.032/19.0	.038/19.0	.051/19.0	.064/19.0	.075/19.0	.082/10.1	.083/10.1	.080/9.8	.072/9.8	.059/9.5	.045/9.5	.031/9.2	.024/9.2
25	7	.039/19.0	.045/19.0	.057/19.0	.071/19.0	.082/19.0	.088/11.6	.090/11.2	.086/11.2	.078/11.2	.065/10.8	.051/10.8	.037/10.8	.031/10.8
	9	.043/23.3	.048/23.3	.060/19.0	.073/19.0	.083/19.0	.089/14.6	.091/14.0	.088/13.4	.080/13.4	.068/12.6	.054/12.6	.042/12.8	.036/12.8
	11	.044/23.3	.049/23.3	.060/23.3	.072/23.3	.082/23.3	.088/15.7	.090/15.3	.087/15.0	.079/14.6	.068/14.6	.056/14.3	.044/14.3	.039/14.3
	13	.046/23.3	.048/23.3	.056/23.3	.066/23.3	.076/23.3	.082/19.0	.084/19.0	.081/18.5	.075/18.5	.065/18.5	.053/18.5	.041/18.5	.037/18.5
	15	.043/23.3	.047/23.3	.056/23.3	.066/23.3	.076/23.3	.082/19.0	.084/19.0	.081/18.5	.075/18.5	.065/18.5	.053/18.5	.041/18.5	.037/18.5
	17	.041/23.3	.045/23.3	.053/23.3	.063/23.3	.072/23.3	.077/20.3	.078/19.6	.076/19.6	.070/19.6	.062/18.0	.052/18.0	.043/19.6	.040/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

SHORTCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
(ACC. X 100)
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.037/9.5	.061/7.9	.102/7.0	.141/7.0	.172/7.0	.193/7.0	.200/7.0	.195/7.0	.177/7.0	.148/7.0	.110/6.7	.070/7.0	.046/7.0	
	9	.053/10.5	.072/10.1	.108/9.8	.144/9.8	.173/9.8	.192/8.3	.199/8.3	.193/8.3	.176/8.1	.148/8.1	.113/8.1	.076/8.3	.057/8.5	
	11	.062/12.1	.076/11.6	.106/10.5	.138/10.5	.163/10.1	.180/10.1	.186/10.1	.181/10.1	.166/10.1	.141/10.1	.110/10.1	.080/10.5	.065/10.5	
	13	.063/13.4	.075/13.1	.100/12.8	.127/12.1	.149/11.6	.164/11.2	.170/11.2	.166/11.2	.152/11.2	.131/11.2	.105/11.2	.080/11.2	.068/11.2	
	15	.061/14.6	.071/14.3	.092/14.0	.115/13.4	.134/13.1	.147/12.8	.153/12.6	.149/12.6	.137/12.6	.119/12.1	.097/12.6	.076/12.6	.067/12.6	
	17	.058/15.7	.065/15.3	.083/15.0	.103/14.6	.120/14.3	.137/14.0	.136/14.0	.133/13.7	.123/13.4	.107/13.4	.089/13.4	.071/13.4	.064/13.4	
	19	.053/17.0	.060/16.5	.075/16.1	.092/15.7	.107/15.3	.117/15.3	.121/15.0	.118/15.0	.110/14.6	.096/14.6	.080/14.6	.065/14.6	.059/14.6	
10	7	.048/17.5	.056/17.0	.067/17.0	.082/16.5	.095/16.5	.104/16.1	.107/16.1	.105/15.7	.098/15.7	.086/15.7	.072/15.3	.059/15.7	.054/16.5	
	9	.035/10.1	.060/8.1	.101/7.9	.141/7.1	.173/7.0	.193/7.0	.202/7.0	.197/7.0	.179/7.0	.150/6.7	.113/6.7	.072/7.0	.049/7.1	
	11	.050/12.1	.069/10.5	.106/10.1	.143/9.8	.173/9.8	.193/8.5	.201/8.3	.196/8.3	.179/8.3	.152/8.3	.117/8.3	.080/8.5	.061/8.7	
	13	.057/13.4	.072/13.4	.103/11.2	.135/10.5	.162/10.5	.180/10.5	.188/10.1	.184/10.1	.169/10.1	.145/10.1	.114/10.1	.084/10.5	.069/10.8	
	15	.058/15.3	.070/14.6	.096/13.4	.124/12.6	.148/12.1	.164/11.6	.171/11.6	.168/11.2	.155/11.2	.134/11.2	.108/11.2	.083/11.6	.072/11.6	
	17	.056/16.1	.066/15.7	.088/15.0	.112/14.3	.132/13.7	.147/13.4	.153/12.8	.151/12.6	.140/12.6	.122/12.6	.100/12.6	.080/12.6	.071/12.8	
	19	.053/17.0	.061/17.0	.079/16.1	.100/15.7	.118/15.0	.137/14.9	.136/14.0	.134/14.0	.125/13.7	.110/13.4	.092/13.4	.074/13.4	.067/13.4	
15	7	.048/18.0	.055/17.5	.071/17.5	.089/16.5	.105/15.7	.116/15.7	.121/15.3	.120/15.0	.112/15.0	.098/14.6	.083/14.6	.068/14.6	.062/14.6	
	9	.033/11.2	.058/9.0	.100/8.5	.140/7.5	.173/6.5	.194/6.5	.203/6.5	.199/6.5	.182/6.5	.153/6.5	.115/6.7	.075/7.0	.051/7.1	
	11	.046/12.1	.066/12.1	.103/10.1	.141/9.5	.172/9.2	.194/9.0	.203/8.7	.199/8.7	.183/8.5	.156/8.5	.121/8.5	.085/8.5	.066/8.7	
	13	.052/15.3	.067/14.3	.099/12.1	.133/11.2	.161/10.1	.180/10.1	.189/10.1	.187/10.1	.173/10.1	.149/9.8	.119/9.8	.089/9.8	.074/10.1	
	15	.053/17.5	.065/17.5	.092/14.3	.121/12.8	.146/12.6	.163/12.1	.171/11.6	.170/11.6	.158/11.6	.138/11.2	.112/11.6	.088/11.6	.076/11.6	
	17	.051/17.5	.061/17.5	.084/15.7	.109/15.3	.130/14.3	.146/13.4	.153/13.1	.152/12.8	.143/12.6	.126/12.6	.104/12.6	.084/12.8	.074/12.8	
	19	.048/19.6	.056/18.5	.076/17.5	.097/15.7	.116/15.3	.136/14.3	.136/14.3	.136/14.0	.128/14.0	.113/13.7	.095/13.7	.078/13.7	.070/14.3	
20	7	.040/20.3	.051/19.6	.068/18.5	.086/17.5	.103/17.0	.115/15.7	.121/15.3	.121/15.3	.114/15.0	.101/15.0	.086/14.6	.071/14.6	.065/14.6	
	9	.047/20.3	.057/20.3	.077/18.5	.097/17.5	.114/17.0	.122/17.5	.127/17.0	.127/16.5	.121/16.5	.109/15.7	.091/15.7	.075/15.7	.065/16.5	
	11	.042/19.0	.053/19.0	.071/17.5	.091/16.5	.108/15.0	.122/15.0	.127/15.0	.127/14.6	.121/14.6	.109/14.0	.091/14.0	.075/14.0	.065/14.6	
	13	.048/19.0	.061/19.0	.080/19.0	.106/15.0	.129/14.6	.145/14.0	.154/13.4	.154/13.4	.145/12.6	.129/12.6	.107/12.8	.087/12.8	.078/12.8	
	15	.046/19.0	.057/19.0	.072/19.0	.094/15.7	.114/15.3	.129/15.0	.137/14.6	.137/14.6	.130/14.0	.116/14.0	.098/14.0	.081/14.3	.073/14.3	
	17	.044/23.3	.053/23.3	.065/19.0	.084/19.0	.101/16.1	.114/15.7	.121/15.7	.122/15.3	.115/15.0	.104/15.0	.088/14.6	.074/14.6	.062/16.5	
	19	.040/23.3	.047/23.3	.056/23.3	.071/23.3	.089/23.3	.106/23.3	.121/23.3	.121/23.3	.114/23.3	.101/23.3	.086/23.3	.071/23.3	.065/23.3	
25	7	.031/13.4	.057/13.4	.100/9.5	.140/9.5	.173/6.5	.195/6.5	.205/6.5	.201/6.5	.184/6.5	.155/6.7	.117/6.7	.076/7.0	.053/7.1	
	9	.042/19.0	.063/19.0	.101/10.1	.140/9.8	.172/9.8	.194/9.5	.205/9.2	.202/9.0	.186/8.7	.160/8.5	.125/8.5	.088/8.5	.069/8.7	
	11	.047/19.0	.063/19.0	.089/10.8	.131/10.5	.160/10.5	.191/10.1	.191/10.1	.189/10.1	.176/10.1	.153/9.8	.123/9.8	.093/9.8	.080/10.1	
	13	.048/19.0	.061/19.0	.089/10.8	.131/10.5	.160/10.5	.191/10.1	.191/10.1	.189/10.1	.176/10.1	.153/9.8	.123/9.8	.093/9.8	.080/10.1	
	15	.046/19.0	.057/19.0	.080/19.0	.106/15.0	.129/14.6	.145/14.0	.154/13.4	.154/13.4	.145/12.6	.129/12.6	.107/12.8	.087/12.8	.078/12.8	
	17	.044/23.3	.053/23.3	.072/19.0	.094/15.7	.114/15.3	.129/15.0	.137/14.6	.137/14.6	.130/14.0	.116/14.0	.098/14.0	.081/14.3	.073/14.3	
	19	.040/23.3	.047/23.3	.055/19.0	.084/19.0	.101/16.1	.114/15.7	.121/15.7	.122/15.3	.115/15.0	.104/15.0	.088/14.6	.074/14.6	.062/16.5	
30	7	.030/16.5	.056/16.5	.099/16.5	.140/16.5	.174/16.5	.196/16.5	.206/16.5	.203/16.5	.186/16.5	.157/16.5	.120/16.5	.089/16.5	.064/16.5	
	9	.039/16.5	.060/16.5	.100/16.5	.139/16.5	.172/16.5	.195/16.5	.206/16.5	.203/16.5	.186/16.5	.157/16.5	.120/16.5	.089/16.5	.064/16.5	
	11	.044/16.5	.060/16.5	.094/16.5	.129/16.5	.159/16.5	.181/16.5	.192/16.5	.192/16.5	.179/16.5	.157/16.5	.127/16.5	.097/16.5	.082/16.5	
	13	.045/16.5	.058/16.5	.086/16.5	.117/16.5	.143/16.5	.163/16.5	.173/16.5	.173/16.5	.164/16.5	.145/16.5	.120/16.5	.095/16.5	.081/16.5	
	15	.044/24.2	.050/24.2	.070/16.5	.093/16.5	.113/16.5	.137/16.5	.155/16.5	.155/16.5	.147/16.5	.132/16.5	.110/16.5	.090/16.5	.081/16.5	
	17	.041/24.2	.046/24.2	.063/16.5	.082/16.5	.100/16.5	.114/16.5	.122/16.5	.123/16.5	.117/16.5	.106/16.5	.091/16.5	.076/16.5	.070/16.5	
	19	.038/24.2	.046/24.2	.056/24.2	.071/24.2	.089/24.2	.106/24.2	.121/24.2	.121/24.2	.114/24.2	.101/24.2	.086/24.2	.071/24.2	.065/24.2	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
SHIP HEADING ANGLE IN DEGREES														
5	7	035/12.1	083/12.1	074/7.9	101/7.5	124/7.3	140/7.0	147/7.0	146/7.0	136/7.0	119/6.8	096/6.7	074/6.8	063/6.8
9	7	073/12.1	093/12.1	106/11.6	132/10.1	155/9.8	172/9.3	180/9.2	178/9.2	168/9.0	149/9.0	127/9.0	106/9.2	097/9.2
11	7	117/14.0	123/14.0	140/13.4	161/13.1	181/12.6	195/12.1	201/11.6	200/11.2	190/11.2	174/11.2	155/11.2	140/11.2	131/11.2
13	7	152/15.7	157/15.3	169/15.3	185/15.1	200/14.3	221/13.7	227/13.4	225/13.1	207/12.8	194/12.6	180/12.6	169/12.6	164/12.6
15	7	179/17.5	182/17.1	191/17.0	203/16.5	215/16.1	224/15.7	228/15.0	227/15.0	220/14.6	211/14.3	200/14.3	192/14.3	188/14.3
17	7	197/19.6	199/19.0	206/19.0	214/18.5	224/18.1	231/17.5	234/17.0	233/17.0	228/16.5	221/16.5	211/16.5	204/16.5	200/16.5
19	7	210/19.6	211/19.6	217/19.6	224/19.6	231/19.6	236/19.6	239/19.6	238/18.5	234/18.0	228/18.0	222/17.5	218/17.5	216/17.5
21	7	220/22.4	221/22.4	225/22.4	231/21.7	236/21.7	240/20.9	242/20.9	242/20.3	239/20.3	235/19.6	230/19.6	227/19.6	225/19.6
10	7	034/12.8	047/9.8	073/7.9	101/7.5	125/7.0	143/7.0	147/7.0	151/6.8	142/6.8	125/6.8	103/7.1	080/7.1	069/7.1
9	7	047/15.0	081/15.0	104/15.0	132/14.5	157/14.8	176/14.5	186/14.5	187/14.5	179/14.5	162/14.5	142/14.7	123/14.7	115/14.7
11	7	114/16.1	121/16.1	138/15.7	160/15.3	181/15.3	197/15.1	206/15.1	207/15.2	200/15.2	186/15.1	170/15.8	156/15.8	150/15.8
13	7	149/17.5	154/17.5	168/17.0	183/16.5	200/15.5	213/15.6	220/15.7	220/15.4	215/15.8	204/15.6	192/15.6	181/15.6	177/15.6
15	7	176/19.1	179/19.1	188/18.5	201/18.0	214/17.5	224/17.5	230/17.5	230/17.5	226/17.5	219/17.5	208/17.5	198/17.5	194/17.5
17	7	193/20.9	196/20.3	203/20.3	213/19.6	223/19.0	231/18.0	235/17.5	236/17.5	232/18.0	226/18.0	219/18.0	214/18.0	211/18.0
19	7	207/21.7	209/21.7	214/21.7	221/21.7	229/20.9	236/20.3	239/19.6	240/19.0	237/19.5	232/18.0	227/18.0	223/17.5	221/17.5
21	7	217/24.2	219/24.2	223/24.2	229/23.3	235/22.4	240/21.7	243/20.9	243/20.3	241/20.3	238/19.6	234/19.6	231/19.6	229/19.6
15	9	033/14.6	046/11.5	073/8.3	101/7.5	126/7.0	145/7.0	155/7.0	155/7.0	147/7.0	131/7.1	108/7.3	086/7.5	076/7.5
9	9	069/19.6	079/17.5	103/17.1	132/16.5	159/16.5	180/16.2	193/16.2	197/16.5	192/16.5	179/16.5	161/16.3	144/16.3	137/16.3
11	9	111/20.3	118/20.3	136/20.3	159/20.3	182/20.3	201/20.3	213/20.3	217/20.3	213/20.8	204/20.5	191/20.1	179/20.1	175/20.1
13	9	145/20.3	150/20.3	163/20.3	181/20.3	199/20.3	215/20.3	224/20.3	228/20.3	225/20.8	218/21.2	208/21.6	200/21.6	197/21.6
15	9	172/21.7	175/21.7	185/21.7	199/20.9	213/20.3	225/17.5	231/15.7	236/15.7	234/15.0	228/14.6	221/14.3	215/14.3	212/14.3
17	9	190/22.4	193/22.4	200/22.4	211/21.7	222/20.9	231/20.3	237/18.0	240/17.5	238/17.0	234/16.5	228/16.5	224/16.5	222/16.5
19	9	203/22.4	206/24.2	211/24.2	221/23.3	228/22.4	235/20.9	240/20.3	242/19.6	241/19.0	238/18.0	234/18.0	231/17.5	229/17.5
21	9	215/26.2	216/26.2	221/25.1	227/25.1	234/24.2	240/22.4	244/20.9	245/20.9	245/20.3	243/19.6	239/19.6	237/19.6	236/19.6
20	7	032/13.7	045/13.7	072/13.7	101/7.0	126/7.0	145/7.0	156/7.0	157/7.0	149/7.1	133/7.1	111/7.5	089/7.7	079/7.7
9	7	067/19.0	077/19.0	101/19.0	131/19.0	160/19.0	184/19.0	200/19.0	207/18.3	204/18.3	193/18.3	178/18.3	164/18.5	158/18.5
11	7	107/23.3	114/23.3	133/23.3	157/23.3	183/23.3	204/21.6	220/21.2	228/20.8	229/20.8	223/20.8	214/20.9	205/20.9	202/20.9
13	7	141/26.2	146/26.2	160/26.2	179/26.2	201/26.2	221/25.0	230/24.0	237/23.7	238/23.6	235/23.6	229/23.6	223/23.6	221/23.6
15	7	168/26.2	172/26.2	182/26.2	197/26.2	221/26.2	246/24.9	257/23.7	262/23.7	264/23.7	261/23.7	254/23.7	247/23.7	245/23.7
17	7	187/27.3	189/27.3	197/27.3	208/26.2	221/26.2	232/24.9	240/24.0	245/23.7	246/23.7	244/23.7	241/23.7	238/23.7	237/23.7
19	7	201/27.3	203/27.3	209/27.3	217/27.3	227/26.2	236/24.2	242/23.3	246/22.4	247/21.9	246/21.0	243/21.0	241/21.5	240/21.5
21	7	212/27.3	214/27.3	219/27.3	225/27.3	233/27.3	240/26.2	245/25.3	248/24.9	249/24.3	248/24.3	246/24.3	245/24.3	244/24.3
25	7	231/16.5	045/16.5	071/16.5	100/16.5	126/16.5	144/16.5	155/16.5	156/16.5	148/7.1	132/7.5	110/7.7	087/7.9	077/8.1
9	7	065/16.5	075/16.5	100/16.5	131/16.5	162/16.5	187/16.5	205/16.5	213/8.3	213/8.5	204/8.7	190/8.7	177/8.7	171/8.7
11	7	105/33.1	112/33.1	131/33.1	157/33.1	184/33.1	208/33.1	227/33.1	238/30.5	242/30.5	240/30.2	234/30.2	227/30.2	225/30.2
13	7	139/33.1	144/33.1	158/33.1	178/33.1	200/33.1	220/33.1	236/33.1	247/31.3	252/31.3	252/31.2	249/31.2	246/31.2	245/31.2
15	7	166/33.1	170/33.1	180/33.1	195/33.1	212/33.1	228/33.1	241/33.1	250/31.6	255/31.6	255/31.6	254/31.6	252/31.6	251/31.6
17	7	184/33.1	187/33.1	195/33.1	207/33.1	224/33.1	243/33.1	253/33.1	251/31.6	254/31.6	255/31.6	254/31.6	253/31.6	252/31.6
19	7	199/33.1	201/33.1	207/33.1	216/33.1	227/33.1	236/33.1	245/33.1	251/31.6	254/31.6	255/31.6	254/31.6	253/31.6	252/31.6
21	7	211/33.1	212/33.1	217/33.1	224/33.1	232/33.1	240/33.1	247/33.1	252/30.9	254/30.9	255/30.9	254/30.9	253/30.9	252/30.9

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

SHORTESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM BL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.026/9.2	.040/7.9	.066/6.8	.092/6.7	.115/6.5	.131/6.3	.139/6.3	.139/6.3	.130/6.3	.114/6.3	.093/6.3	.072/6.3	.061/5.7
9	9	.042/12.1	.052/11.6	.074/9.5	.098/9.0	.119/8.5	.135/8.3	.143/8.3	.143/8.1	.136/8.1	.122/8.1	.103/8.3	.086/8.5	.078/8.7
11	11	.058/13.4	.064/13.1	.079/12.8	.098/12.1	.116/11.2	.129/10.8	.136/10.1	.137/10.1	.124/11.6	.116/11.6	.106/11.6	.097/11.6	.084/10.1
13	13	.067/14.6	.071/14.3	.083/14.3	.094/13.7	.104/14.6	.113/14.0	.118/13.7	.119/13.4	.116/13.1	.111/12.8	.104/12.8	.098/12.8	.096/12.8
15	15	.072/15.7	.075/15.7	.081/17.0	.090/16.5	.098/16.1	.105/15.7	.109/15.0	.110/15.0	.109/14.6	.105/14.6	.100/14.3	.096/14.3	.094/14.3
17	17	.073/17.5	.075/17.5	.081/19.0	.089/18.4	.097/17.5	.104/17.0	.108/17.0	.109/16.5	.108/16.5	.105/16.5	.100/16.5	.096/16.5	.094/16.5
19	19	.074/19.0	.076/19.0	.082/19.0	.089/18.4	.096/17.5	.103/17.0	.107/16.5	.108/16.5	.107/16.5	.104/16.5	.099/16.5	.095/16.5	.093/16.5
21	21	.071/19.6	.072/19.6	.076/19.6	.081/19.6	.086/19.0	.091/18.5	.094/18.0	.095/18.0	.095/17.5	.093/17.0	.090/17.0	.088/17.0	.087/17.0
10	7	.022/9.8	.037/7.7	.064/7.0	.092/6.5	.117/6.5	.135/6.5	.145/6.5	.147/6.5	.139/6.5	.124/6.5	.103/6.7	.082/6.8	.071/6.8
9	9	.036/15.0	.047/13.4	.070/9.8	.096/9.8	.121/7.9	.140/7.7	.152/7.5	.156/7.5	.151/7.7	.140/7.7	.123/7.9	.107/7.9	.100/8.1
11	11	.050/15.7	.056/15.7	.074/15.3	.095/12.1	.116/11.2	.132/10.1	.144/9.8	.148/9.5	.137/9.5	.138/9.5	.127/9.5	.117/9.5	.112/9.5
13	13	.058/17.0	.063/17.0	.076/18.0	.089/17.0	.102/15.7	.114/14.6	.122/14.0	.127/13.4	.127/13.1	.124/12.8	.120/12.8	.115/12.8	.113/12.8
15	15	.063/18.0	.067/18.0	.075/19.0	.084/18.0	.095/17.5	.105/16.5	.112/15.3	.116/15.0	.118/14.6	.116/14.3	.113/14.3	.110/14.3	.109/14.3
17	17	.065/19.6	.067/19.6	.072/20.9	.080/19.6	.089/18.5	.097/18.0	.103/17.0	.107/16.5	.109/16.5	.108/16.5	.106/16.5	.104/16.5	.103/16.5
19	19	.065/20.9	.067/20.9	.072/20.9	.080/20.9	.089/20.3	.097/20.3	.103/20.3	.107/20.3	.109/20.3	.108/20.3	.106/20.3	.104/20.3	.103/20.3
21	21	.064/21.7	.065/21.7	.070/21.7	.076/21.7	.083/20.3	.090/20.3	.096/19.0	.099/18.0	.101/17.5	.101/17.0	.100/17.0	.098/17.0	.098/17.0
15	7	.019/11.6	.034/8.3	.062/6.5	.092/6.5	.118/6.5	.139/6.5	.151/6.7	.154/6.7	.148/6.7	.133/6.7	.112/7.1	.091/7.3	.081/7.3
9	9	.031/17.5	.042/17.5	.067/9.0	.096/8.3	.124/7.5	.147/7.3	.163/7.5	.171/7.7	.170/7.7	.162/7.7	.149/7.9	.135/7.9	.129/7.9
11	11	.042/20.3	.050/20.3	.069/20.3	.093/20.3	.117/9.8	.134/9.5	.154/9.0	.164/9.0	.167/8.5	.163/8.5	.156/8.5	.149/8.7	.145/8.7
13	13	.050/20.3	.055/20.3	.069/20.3	.084/20.3	.109/18.0	.127/12.6	.141/11.1	.151/11.6	.155/11.2	.154/10.8	.151/10.5	.146/10.1	.144/10.1
15	15	.055/20.9	.059/20.9	.069/20.3	.084/20.3	.101/15.7	.116/15.0	.128/13.7	.137/13.4	.142/13.1	.143/12.8	.141/12.6	.139/12.6	.138/12.6
17	17	.057/21.7	.060/21.7	.068/21.7	.080/21.7	.093/18.0	.105/16.5	.117/15.3	.125/15.0	.130/14.6	.131/14.3	.131/14.3	.130/14.3	.129/14.3
19	19	.057/23.3	.059/23.3	.066/22.4	.076/21.7	.087/21.7	.098/20.3	.107/21.5	.114/21.5	.118/21.5	.121/21.5	.121/21.5	.120/21.5	.119/21.5
21	21	.057/24.2	.059/24.2	.064/24.2	.072/22.4	.081/21.7	.090/20.3	.098/20.3	.105/20.3	.109/20.3	.111/20.3	.112/20.3	.112/20.3	.112/20.3
20	7	.017/13.4	.032/9.2	.061/6.5	.091/6.5	.119/6.5	.141/6.7	.154/7.0	.159/7.0	.153/7.0	.139/7.1	.119/7.1	.098/7.7	.088/7.7
9	9	.026/19.0	.038/19.0	.064/9.5	.096/7.1	.127/7.5	.147/7.7	.174/7.7	.186/7.9	.190/7.9	.185/8.1	.175/8.3	.164/8.3	.159/8.3
11	11	.035/23.3	.044/23.3	.064/23.3	.091/23.3	.119/9.8	.145/8.3	.167/8.3	.182/8.3	.190/8.5	.192/8.5	.189/8.5	.185/8.5	.183/8.5
13	13	.042/23.3	.048/23.3	.064/23.3	.091/23.3	.110/14.6	.132/11.6	.152/11.2	.167/10.1	.176/9.0	.181/9.0	.182/9.0	.180/8.7	.180/8.7
15	15	.047/26.2	.051/26.2	.064/26.2	.081/23.3	.101/13.3	.120/14.6	.137/11.1	.151/13.4	.160/12.6	.165/12.1	.168/11.6	.168/11.2	.168/10.1
17	17	.047/26.2	.053/26.2	.062/26.2	.076/26.2	.093/17.0	.109/15.7	.124/13.3	.136/15.0	.144/14.6	.150/14.3	.153/14.3	.154/14.3	.154/14.3
19	19	.050/27.3	.053/27.3	.061/27.3	.072/26.2	.086/19.6	.099/19.0	.116/16.5	.123/16.5	.131/16.5	.136/16.5	.139/16.1	.140/16.1	.141/16.1
21	21	.050/27.3	.053/27.3	.061/27.3	.072/26.2	.080/27.3	.092/20.3	.103/19.6	.112/18.0	.119/17.5	.124/17.0	.127/17.0	.128/16.5	.129/16.5
25	7	.014/16.5	.031/16.5	.059/16.5	.091/6.7	.119/7.0	.142/7.0	.156/7.0	.160/7.0	.155/7.0	.142/7.1	.121/7.7	.099/7.7	.089/7.9
9	9	.022/16.5	.035/16.5	.062/16.5	.096/16.5	.130/7.7	.160/7.7	.184/7.9	.199/8.1	.206/8.3	.203/8.3	.195/8.5	.186/8.5	.181/8.5
11	11	.029/16.5	.039/16.5	.061/16.5	.091/16.5	.123/8.1	.153/8.3	.179/8.3	.200/8.5	.213/8.7	.219/8.7	.220/8.7	.219/9.0	.218/9.0
13	13	.035/33.1	.042/33.1	.060/16.5	.084/16.5	.112/16.5	.139/11.6	.163/9.0	.184/9.0	.199/9.0	.208/9.0	.213/9.0	.215/9.0	.215/9.0
15	15	.040/33.1	.045/33.1	.059/33.1	.074/33.1	.101/18.5	.125/16.5	.147/13.1	.165/12.6	.180/9.2	.196/9.2	.213/9.2	.218/9.2	.219/9.2
17	17	.042/33.1	.046/33.1	.051/33.1	.064/33.1	.093/16.5	.113/16.5	.131/16.5	.148/14.6	.161/14.3	.170/13.7	.177/12.8	.180/9.2	.181/9.2
19	19	.044/33.1	.047/33.1	.056/33.1	.069/33.1	.085/19.0	.102/16.5	.118/16.5	.133/16.5	.144/16.5	.153/16.5	.162/16.5	.163/16.5	.163/16.5
21	21	.045/33.1	.047/33.1	.054/33.1	.065/33.1	.079/24.2	.092/20.3	.108/19.0	.120/18.0	.131/17.5	.138/17.0	.144/16.5	.147/16.5	.148/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

SHORTCRESTED
RMS VEL ACC IN G'S/ENCOUNTERED MUDAL PERIOD, T IN SECONDS
OE
(ACC. X 100)
CENTER OF GRAVITY - 255.8 FT FORWARD OF AP AND 19.8 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.063/8.1	.111/6.7	.195/6.3	.281/6.3	.353/6.3	.405/6.3	.433/6.3	.434/6.3	.408/6.3	.360/5.7	.296/5.7	.229/5.7	.196/5.7	
	9	.082/11.6	.115/9.5	.182/7.5	.255/7.5	.318/6.5	.365/6.5	.391/6.3	.394/6.3	.375/6.3	.337/6.3	.286/6.3	.235/6.3	.211/5.7	
	11	.095/13.1	.116/12.8	.164/12.1	.219/9.2	.269/8.3	.307/7.9	.329/7.9	.333/7.9	.320/8.3	.292/8.3	.255/9.0	.200/9.2	.204/9.2	
	13	.099/14.0	.113/14.0	.147/13.4	.189/12.6	.227/11.6	.257/10.8	.275/9.8	.280/9.8	.271/9.8	.251/10.1	.225/10.5	.201/10.8	.190/10.8	
	15	.098/15.0	.107/14.6	.132/14.3	.163/13.7	.193/12.8	.217/12.1	.232/11.6	.236/11.6	.230/11.6	.216/11.6	.198/11.6	.173/11.6	.173/11.6	
	17	.092/15.7	.099/15.7	.118/15.7	.142/15.7	.165/14.0	.184/13.4	.197/12.8	.201/12.6	.197/12.6	.187/12.6	.174/12.6	.162/12.6	.156/12.6	
	19	.086/17.0	.091/17.0	.105/16.5	.124/15.7	.143/15.0	.159/14.3	.169/13.7	.173/13.4	.170/13.4	.163/13.4	.153/13.7	.144/14.3	.140/14.3	
	21	.079/17.5	.083/17.5	.094/17.5	.109/17.0	.125/16.1	.138/15.3	.146/15.0	.150/14.6	.148/14.3	.143/14.3	.135/14.3	.128/14.3	.125/14.3	
	10	7	.050/7.7	.101/7.0	.190/6.3	.283/6.3	.364/6.3	.425/6.3	.461/6.3	.469/6.3	.448/6.3	.402/6.3	.338/6.3	.270/6.3	.237/6.3
		9	.064/12.1	.100/9.8	.173/7.0	.253/6.5	.330/6.5	.390/6.5	.429/6.3	.444/6.7	.435/6.7	.404/6.7	.358/7.3	.312/7.5	.291/7.5
11		.073/15.3	.093/15.3	.151/10.1	.216/7.5	.277/6.7	.327/6.8	.362/7.0	.379/7.1	.377/7.5	.359/7.7	.330/7.9	.301/8.1	.288/8.3	
13		.077/16.1	.093/16.1	.133/15.3	.182/12.1	.230/9.8	.272/7.7	.301/7.7	.318/7.9	.320/8.3	.309/8.7	.291/9.2	.272/9.2	.264/9.5	
15		.076/17.0	.088/17.0	.117/16.5	.155/15.3	.194/14.6	.227/12.1	.252/11.6	.266/11.2	.270/10.8	.265/10.8	.253/11.2	.241/11.2	.235/11.2	
17		.073/18.0	.081/18.0	.104/17.5	.133/16.5	.164/16.5	.192/15.0	.213/14.6	.226/12.6	.230/12.6	.227/12.6	.220/12.6	.211/12.6	.208/12.6	
19		.069/19.6	.075/19.0	.092/18.5	.116/17.5	.141/15.7	.164/15.0	.182/13.7	.193/13.4	.198/13.1	.196/13.1	.191/13.1	.185/13.1	.183/13.1	
21		.064/20.3	.069/19.6	.082/19.6	.102/18.5	.123/17.5	.142/15.7	.167/14.6	.171/14.3	.171/14.3	.171/14.3	.167/14.3	.163/14.3	.161/14.3	
15		7	.040/8.3	.094/6.3	.187/6.3	.286/6.3	.376/6.3	.445/6.3	.489/6.5	.503/6.5	.487/6.5	.444/6.7	.379/6.7	.311/7.1	.278/7.3
		9	.050/12.1	.089/8.5	.168/6.5	.260/6.5	.348/6.5	.423/6.7	.478/7.0	.507/7.1	.511/7.3	.491/7.5	.454/7.7	.415/7.7	.397/7.7
	11	.056/20.3	.083/12.8	.143/8.7	.217/7.0	.292/7.0	.358/7.1	.410/7.3	.443/7.5	.457/7.7	.453/7.9	.436/7.9	.416/8.1	.407/8.1	
	13	.059/20.3	.077/20.3	.123/12.8	.181/7.0	.241/7.1	.296/7.3	.341/7.7	.373/7.7	.390/7.9	.393/8.1	.386/8.1	.375/8.3	.370/8.3	
	15	.057/20.9	.067/20.9	.106/20.3	.152/12.8	.200/7.1	.246/7.5	.284/7.7	.312/7.9	.329/8.1	.333/8.3	.327/8.5	.324/8.5	.324/8.5	
	17	.057/20.9	.067/20.9	.106/20.3	.152/12.8	.200/7.1	.246/7.5	.284/7.7	.312/7.9	.329/8.1	.333/8.3	.327/8.5	.324/8.5	.324/8.5	
	19	.054/21.7	.062/21.7	.082/20.9	.112/20.9	.144/15.3	.175/14.0	.202/13.4	.223/12.8	.237/12.6	.244/8.7	.245/8.7	.245/9.0	.244/9.0	
	21	.051/22.4	.057/22.4	.073/21.7	.097/20.9	.124/15.3	.150/15.3	.173/14.6	.192/14.3	.204/14.0	.211/14.0	.213/14.0	.212/14.3	.212/14.3	
	20	7	.032/9.0	.089/5.7	.184/6.3	.289/6.3	.386/6.5	.463/6.5	.513/6.5	.533/6.7	.520/6.7	.479/7.0	.415/7.1	.347/7.5	.314/7.7
		9	.039/14.0	.081/9.2	.166/6.5	.267/6.5	.369/7.0	.450/7.1	.511/7.1	.577/7.7	.595/7.7	.587/7.9	.561/8.1	.530/8.1	.515/8.1
11		.043/19.0	.073/19.0	.139/6.7	.223/7.0	.312/7.0	.398/7.7	.467/7.7	.521/7.9	.554/8.1	.567/8.3	.565/8.3	.550/8.3	.552/8.3	
13		.045/23.3	.066/23.3	.117/11.2	.184/7.0	.257/7.5	.328/7.7	.391/7.9	.442/8.1	.477/8.3	.498/8.3	.508/8.3	.508/8.5	.505/8.5	
15		.046/23.3	.061/23.3	.100/14.6	.153/7.1	.213/7.7	.272/8.1	.330/8.3	.370/8.5	.403/8.5	.424/8.5	.435/8.5	.438/8.5	.437/8.5	
17		.045/26.2	.056/26.2	.086/23.3	.129/14.6	.178/7.7	.227/7.7	.272/8.1	.310/8.3	.339/8.5	.359/8.5	.371/8.5	.375/8.5	.375/8.5	
19		.043/26.2	.051/26.2	.076/26.2	.110/15.7	.151/15.0	.190/15.7	.226/8.1	.262/8.3	.288/8.5	.306/8.5	.317/8.5	.322/8.7	.323/8.7	
21		.041/27.3	.047/27.3	.067/27.3	.096/26.5	.129/15.0	.164/15.0	.196/14.6	.224/8.3	.246/8.5	.262/8.7	.272/8.7	.277/8.7	.278/8.7	
25		7	.027/16.5	.085/5.7	.194/6.3	.293/6.5	.394/6.5	.475/6.5	.529/7.0	.552/7.0	.541/7.0	.500/7.1	.435/7.7	.355/7.7	.331/7.7
		9	.031/16.5	.076/16.5	.166/6.7	.276/7.0	.391/7.0	.496/7.5	.582/7.7	.641/7.9	.671/8.1	.673/8.3	.655/8.3	.630/8.3	.618/8.5
	11	.034/16.5	.066/16.5	.138/7.0	.232/7.0	.335/7.0	.436/7.7	.527/8.1	.600/8.3	.652/8.3	.682/8.5	.696/8.7	.696/8.7	.694/8.7	
	13	.035/16.5	.058/16.5	.114/16.5	.190/7.5	.276/7.7	.364/7.9	.446/8.3	.516/8.3	.571/8.5	.610/8.7	.632/8.7	.643/8.7	.648/8.7	
	15	.035/33.1	.052/33.1	.096/16.5	.157/7.5	.228/7.7	.301/8.1	.372/8.3	.434/8.5	.484/8.7	.522/8.7	.546/8.7	.559/9.0	.563/9.0	
	17	.035/33.1	.048/33.1	.082/16.5	.132/7.5	.190/7.9	.251/8.1	.310/8.3	.364/8.5	.408/8.7	.442/8.7	.465/9.0	.478/9.0	.482/9.0	
	19	.034/33.1	.044/33.1	.071/33.1	.112/16.5	.160/7.9	.211/8.3	.267/8.3	.307/8.7	.346/8.7	.375/8.7	.396/9.0	.408/9.0	.411/9.0	
	21	.033/33.1	.040/33.1	.063/33.1	.096/16.5	.137/7.9	.180/8.3	.222/8.3	.262/8.7	.295/8.7	.329/9.0	.339/9.0	.350/9.0	.353/9.0	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM RL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.070/ 9.2	.079/ 9.2	.097/ 8.7	.117/ 8.7	.134/ 8.3	.144/ 8.3	.147/ 7.9	.141/ 7.5	.129/ 7.5	.110/ 7.1	.089/ 7.1	.071/ 7.1	.063/ 7.3	
	9	.119/11.6	.126/11.2	.143/11.2	.162/10.8	.178/ 9.2	.187/ 9.2	.187/ 9.0	.179/ 9.0	.163/ 8.7	.143/ 8.5	.121/ 8.5	.103/ 8.5	.096/ 8.5	
	11	.151/12.8	.157/12.6	.171/12.6	.188/12.6	.202/12.1	.208/12.1	.206/11.6	.196/11.6	.179/11.2	.158/11.2	.136/ 9.0	.120/ 9.0	.114/ 9.0	
	13	.166/14.0	.171/14.0	.185/14.0	.201/13.7	.213/13.7	.218/13.4	.216/13.4	.205/13.1	.187/12.8	.166/12.8	.145/12.6	.129/12.6	.123/12.6	
	15	.171/15.3	.176/15.3	.190/15.3	.206/15.3	.218/15.3	.224/15.3	.221/15.0	.210/15.0	.192/14.6	.171/14.6	.150/14.3	.134/14.3	.128/14.3	
	17	.169/17.0	.175/17.0	.189/17.0	.205/17.0	.218/17.0	.225/17.0	.222/17.0	.212/17.0	.194/16.5	.173/16.5	.152/16.1	.136/15.3	.129/15.0	
	19	.165/19.0	.171/19.0	.186/19.0	.203/19.0	.216/19.0	.223/18.5	.222/18.5	.212/18.5	.195/18.0	.174/18.0	.152/17.5	.135/17.0	.129/17.0	
10	7	.089/11.6	.097/11.6	.114/11.6	.133/ 9.5	.146/ 9.5	.153/ 9.5	.151/ 7.7	.142/ 7.7	.125/ 7.7	.104/ 7.5	.081/ 7.3	.063/ 7.3	.055/ 7.3	
	9	.152/13.7	.158/13.7	.173/13.7	.189/12.8	.201/11.6	.204/11.6	.197/11.6	.182/ 9.5	.160/ 9.2	.135/ 8.7	.111/ 8.5	.093/ 8.5	.086/ 8.5	
	11	.189/14.3	.194/14.3	.207/14.3	.220/14.3	.232/13.7	.239/13.4	.237/13.4	.220/12.6	.195/11.6	.169/ 9.5	.146/ 9.5	.126/ 9.5	.120/ 9.5	
	13	.203/15.3	.208/15.3	.219/15.3	.232/15.0	.240/14.6	.247/14.6	.242/14.6	.228/13.7	.203/13.4	.177/13.1	.153/12.8	.130/12.6	.124/12.6	
	15	.204/16.5	.209/16.5	.220/16.5	.233/16.1	.241/16.1	.241/15.7	.230/15.7	.211/15.3	.187/15.0	.161/14.6	.138/14.6	.120/14.3	.114/14.3	
	17	.198/18.0	.203/18.0	.215/18.0	.229/17.5	.238/17.5	.239/17.5	.230/17.5	.212/17.5	.189/17.0	.163/17.0	.140/16.5	.122/16.5	.115/16.5	
	19	.190/19.6	.195/19.6	.208/19.6	.223/19.0	.233/19.0	.235/19.0	.228/19.0	.212/19.0	.189/18.5	.164/18.0	.140/17.5	.122/17.0	.116/17.0	
15	7	.156/14.3	.161/14.3	.171/14.3	.181/14.3	.187/14.3	.184/14.3	.172/14.3	.152/11.2	.127/ 8.1	.100/ 7.9	.075/ 7.5	.056/ 7.3	.049/ 7.3	
	9	.213/17.5	.217/17.5	.228/17.5	.240/17.5	.246/16.6	.238/16.6	.221/16.6	.194/14.3	.162/11.6	.130/ 9.0	.102/ 8.7	.084/ 8.5	.077/ 8.5	
	11	.246/17.5	.250/17.5	.260/17.5	.269/17.5	.271/17.5	.262/17.5	.242/16.6	.211/16.6	.177/12.1	.143/11.6	.117/10.1	.099/10.1	.092/10.1	
	13	.253/17.5	.258/17.5	.268/17.5	.276/17.5	.278/17.5	.269/17.5	.246/16.6	.218/15.7	.183/14.3	.150/13.1	.123/12.8	.106/12.1	.099/11.6	
	15	.245/19.6	.249/19.6	.259/19.6	.268/19.6	.263/19.6	.258/19.6	.242/17.5	.216/17.5	.186/17.0	.156/17.0	.129/17.0	.111/16.5	.104/16.5	
	17	.232/19.6	.237/19.6	.247/19.6	.256/19.6	.254/19.6	.251/19.6	.237/19.6	.214/19.6	.186/19.0	.157/19.0	.130/18.0	.111/17.5	.104/17.0	
	19	.218/19.6	.223/19.6	.235/19.6	.247/19.6	.246/20.9	.245/20.9	.233/20.9	.213/20.9	.186/20.9	.159/20.3	.132/20.3	.112/19.6	.105/19.6	
20	7	.301/19.0	.301/19.0	.299/13.4	.294/13.4	.282/13.4	.259/13.4	.224/13.4	.181/13.4	.138/13.4	.100/13.4	.070/ 8.1	.050/ 7.3	.043/ 7.3	
	9	.329/19.0	.330/19.0	.333/19.0	.333/19.0	.325/18.0	.303/19.0	.266/19.0	.220/19.0	.171/13.4	.128/13.4	.095/ 9.0	.076/ 8.7	.069/ 8.7	
	11	.334/23.3	.336/19.0	.341/19.0	.343/19.0	.336/19.0	.315/19.0	.279/19.0	.233/19.0	.183/13.4	.140/13.4	.109/10.1	.090/10.1	.084/10.1	
	13	.319/23.3	.322/23.3	.327/23.3	.331/19.0	.326/19.0	.308/19.0	.268/19.0	.233/19.0	.187/14.0	.146/13.4	.115/12.8	.096/11.6	.090/11.6	
	15	.297/23.3	.300/23.3	.307/23.3	.313/23.3	.311/19.0	.286/19.0	.250/19.0	.229/19.0	.187/19.0	.148/15.3	.119/15.0	.100/14.6	.093/14.6	
	17	.273/23.3	.277/23.3	.285/23.3	.293/23.3	.294/23.3	.282/19.0	.250/19.0	.224/19.0	.186/19.0	.148/17.5	.121/17.0	.101/16.5	.094/16.5	
	19	.252/23.3	.256/23.3	.266/23.3	.278/23.3	.276/23.3	.270/23.3	.250/19.0	.220/19.0	.185/19.0	.151/19.0	.122/19.0	.102/18.0	.095/17.5	
25	7	.412/16.5	.413/16.5	.415/16.5	.412/16.5	.398/16.5	.364/16.5	.309/16.5	.240/16.5	.168/16.5	.107/16.5	.067/ 9.5	.045/ 7.3	.039/ 7.3	
	9	.465/16.5	.465/16.5	.464/16.5	.457/16.5	.438/16.5	.400/16.5	.341/16.5	.267/16.5	.193/16.5	.130/16.5	.090/ 9.5	.069/ 9.0	.062/ 9.0	
	11	.450/16.5	.450/16.5	.449/16.5	.443/16.5	.425/16.5	.390/16.5	.335/16.5	.267/16.5	.198/16.5	.140/16.5	.102/10.5	.082/10.1	.076/10.1	
	13	.412/16.5	.412/16.5	.413/16.5	.410/16.5	.396/16.5	.365/16.5	.317/16.5	.257/16.5	.196/16.5	.144/16.5	.108/12.8	.089/12.1	.082/11.6	
	15	.371/24.2	.373/24.2	.375/16.5	.375/16.5	.365/16.5	.339/16.5	.299/16.5	.257/16.5	.193/16.5	.146/16.5	.112/15.0	.092/14.6	.085/14.6	
	17	.335/23.9	.337/23.9	.341/24.2	.343/24.2	.337/16.5	.317/16.5	.282/16.5	.237/16.5	.189/16.5	.147/16.5	.114/17.0	.093/16.5	.086/16.5	
	19	.304/23.9	.307/23.9	.313/23.9	.317/24.2	.314/24.2	.296/16.5	.269/16.5	.230/16.5	.187/16.5	.148/20.9	.115/19.6	.094/19.0	.087/19.0	
26	7	.280/23.9	.283/23.9	.290/23.9	.297/23.9	.296/24.2	.284/24.2	.269/24.2	.234/24.2	.185/20.9	.148/20.9	.117/20.3	.096/20.3	.089/19.6	
	9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	.283/23.9	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.051/9.2	.059/8.7	.078/8.3	.098/8.3	.115/7.9	.127/7.5	.133/7.1	.130/7.0	.121/6.8	.105/6.8	.086/6.8	.067/6.8	.059/7.0	
	9	.073/11.2	.079/10.8	.094/9.5	.112/9.2	.128/9.0	.139/8.7	.143/8.7	.140/8.3	.131/8.3	.116/8.1	.098/7.9	.083/8.1	.077/8.1	
	11	.081/12.1	.086/12.1	.098/12.1	.113/11.6	.125/11.6	.134/11.2	.137/9.0	.133/9.0	.125/8.7	.112/8.7	.097/8.7	.085/8.7	.080/8.7	
	13	.082/13.1	.086/13.1	.095/13.1	.107/12.8	.118/12.6	.124/12.6	.126/12.1	.123/12.1	.115/11.6	.103/11.6	.091/11.2	.081/11.2	.077/11.2	
	15	.077/14.0	.081/14.0	.089/14.0	.099/14.0	.108/14.0	.114/13.7	.115/13.4	.112/13.1	.105/13.1	.095/12.8	.084/12.6	.075/12.6	.071/12.6	
	17	.072/15.3	.075/15.3	.082/15.3	.091/15.3	.099/15.3	.104/15.0	.105/15.0	.102/14.6	.095/14.6	.086/14.3	.077/14.3	.069/13.4	.066/13.1	
	19	.066/16.5	.068/16.5	.075/16.5	.083/16.5	.090/16.5	.095/16.5	.098/16.5	.093/16.5	.087/16.1	.079/15.7	.070/15.0	.063/14.6	.060/14.6	
	21	.060/17.5	.062/17.5	.069/18.0	.076/18.0	.083/18.0	.087/18.0	.088/18.0	.085/18.0	.080/17.5	.072/17.0	.064/17.0	.057/16.5	.055/16.5	
	10	7	.054/11.6	.062/11.6	.080/9.5	.100/9.5	.117/7.7	.128/7.5	.132/7.5	.129/7.3	.119/7.1	.103/7.0	.083/7.0	.065/7.0	.057/7.1
		9	.079/12.8	.085/12.8	.100/12.6	.117/11.6	.132/11.6	.141/9.5	.144/9.2	.140/8.7	.130/8.1	.114/8.1	.097/8.1	.082/8.1	.075/8.1
11		.089/14.3	.094/14.0	.105/13.7	.119/13.4	.130/12.8	.137/12.6	.138/11.6	.134/9.5	.124/9.2	.110/9.0	.096/9.0	.084/9.0	.079/9.0	
13		.089/15.0	.092/14.6	.102/14.5	.113/14.3	.122/14.0	.128/13.4	.128/13.1	.123/12.6	.114/12.1	.102/9.5	.089/9.2	.079/9.5	.075/9.5	
15		.083/15.3	.087/15.3	.095/15.3	.104/15.3	.112/15.0	.117/14.6	.117/14.3	.112/13.7	.104/13.4	.093/13.1	.082/12.8	.069/12.8	.063/12.8	
17		.077/16.5	.079/16.1	.087/16.1	.095/16.1	.102/15.7	.106/15.7	.106/15.3	.102/15.0	.094/15.0	.085/14.6	.074/14.3	.067/14.3	.063/14.3	
19		.069/17.5	.072/17.5	.079/17.0	.087/17.0	.093/17.0	.097/17.0	.097/17.0	.093/16.5	.086/16.5	.077/16.5	.068/15.3	.061/15.0	.058/14.6	
21		.063/18.0	.065/18.5	.072/18.5	.079/18.5	.085/18.5	.088/18.0	.088/18.0	.085/18.0	.079/18.0	.071/17.5	.062/17.5	.055/17.0	.053/16.5	
15		7	.061/14.3	.068/14.3	.085/14.3	.104/14.3	.119/14.3	.129/7.9	.132/7.9	.127/7.9	.116/7.7	.100/7.3	.080/7.0	.062/7.0	.054/7.0
		9	.088/17.5	.093/17.5	.107/17.5	.123/14.3	.137/14.3	.144/14.3	.145/11.6	.140/8.5	.128/8.3	.112/8.3	.094/8.1	.079/8.1	.073/8.3
	11	.097/17.5	.101/17.5	.112/17.5	.125/14.6	.136/14.6	.141/14.6	.141/14.6	.134/11.6	.123/9.2	.109/9.0	.094/9.0	.082/9.0	.077/9.0	
	13	.095/17.5	.099/17.5	.108/17.5	.118/17.5	.127/15.0	.131/14.6	.130/14.6	.124/14.3	.113/12.1	.100/11.2	.087/10.1	.077/10.1	.073/10.1	
	15	.088/17.5	.091/17.5	.099/17.5	.109/17.5	.116/17.5	.119/17.5	.118/15.0	.112/14.6	.103/14.3	.091/13.1	.080/12.8	.071/11.2	.067/10.8	
	17	.080/17.5	.083/17.5	.090/17.5	.098/17.5	.105/17.5	.108/17.5	.107/17.5	.102/15.3	.093/15.3	.083/14.6	.072/14.6	.064/14.3	.061/14.3	
	19	.072/19.6	.075/19.6	.081/19.6	.089/17.5	.095/17.5	.098/17.5	.097/17.5	.093/17.5	.085/17.0	.075/16.5	.066/16.5	.059/15.3	.056/15.0	
	21	.065/19.6	.067/19.6	.074/19.6	.081/19.6	.087/19.6	.090/18.5	.089/18.0	.085/18.0	.078/18.0	.069/17.5	.060/17.5	.053/17.0	.051/17.0	
	20	7	.066/13.4	.074/13.4	.091/13.4	.109/13.4	.123/13.4	.132/13.4	.133/13.4	.127/13.4	.115/13.4	.097/7.0	.077/7.0	.060/6.8	.052/7.0
		9	.093/19.0	.099/19.0	.113/19.0	.129/19.0	.141/13.4	.148/13.4	.147/13.4	.140/13.4	.127/13.4	.109/8.5	.091/8.3	.076/8.3	.071/8.3
11		.100/19.0	.104/19.0	.116/19.0	.129/19.0	.139/19.0	.144/19.0	.142/19.0	.135/13.4	.122/13.4	.107/9.2	.091/9.0	.079/9.0	.075/9.0	
13		.096/19.0	.100/19.0	.110/19.0	.121/19.0	.129/19.0	.133/19.0	.131/19.0	.124/13.4	.112/13.4	.099/10.5	.085/10.1	.075/10.1	.071/10.1	
15		.088/23.3	.092/23.3	.100/19.0	.110/19.0	.117/19.0	.121/19.0	.119/19.0	.112/13.4	.102/13.4	.090/13.4	.078/12.1	.068/11.2	.065/11.2	
17		.080/23.3	.083/23.3	.091/23.3	.099/19.0	.106/19.0	.109/19.0	.107/19.0	.102/19.0	.092/15.3	.081/15.0	.070/14.6	.062/14.3	.059/14.3	
19		.072/23.3	.074/23.3	.082/23.3	.090/19.0	.096/19.0	.099/19.0	.097/19.0	.084/19.0	.074/16.5	.064/16.5	.057/16.5	.054/15.3	.051/15.3	
21		.065/23.3	.067/23.3	.074/23.3	.081/23.3	.087/19.0	.090/19.0	.089/19.0	.084/19.0	.077/19.0	.068/18.0	.059/17.5	.052/17.0	.049/17.0	
25		7	.067/16.5	.074/16.5	.092/16.5	.110/16.5	.125/16.5	.132/16.5	.133/16.5	.126/16.5	.113/16.5	.095/16.5	.074/6.8	.057/7.0	.049/7.0
		9	.089/16.5	.095/16.5	.111/16.5	.128/16.5	.141/16.5	.147/16.5	.147/16.5	.139/16.5	.125/16.5	.107/16.5	.088/8.1	.074/8.3	.068/8.3
	11	.095/16.5	.100/16.5	.113/16.5	.127/16.5	.139/16.5	.143/16.5	.141/16.5	.133/16.5	.120/16.5	.104/16.5	.089/9.2	.077/9.2	.072/9.2	
	13	.091/16.5	.096/16.5	.107/16.5	.119/16.5	.128/16.5	.130/16.5	.130/16.5	.122/16.5	.111/16.5	.097/16.5	.083/10.1	.073/10.1	.069/10.1	
	15	.084/16.5	.088/16.5	.098/16.5	.109/16.5	.116/16.5	.116/16.5	.116/16.5	.111/16.5	.100/16.5	.088/16.5	.076/12.1	.067/11.2	.063/11.2	
	17	.077/16.5	.080/16.5	.089/16.5	.098/16.5	.105/16.5	.108/16.5	.106/16.5	.101/16.5	.091/16.5	.080/16.5	.069/14.6	.059/13.1	.057/12.6	
	19	.070/24.2	.073/16.5	.080/16.5	.089/16.5	.095/16.5	.098/16.5	.095/16.5	.090/16.5	.083/16.5	.072/16.5	.062/16.5	.055/16.5	.052/16.5	
	21	.063/29.9	.066/24.2	.073/16.5	.081/16.5	.087/16.5	.089/16.5	.088/16.5	.083/16.5	.076/16.5	.066/16.5	.057/18.0	.050/17.0	.047/17.0	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

SHORTESTED
RMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - J2.3 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	123/ 8.7	150/ 8.3	211/ 7.7	280/ 7.5	341/ 6.5	395/ 6.5	408/ 6.5	407/ 6.5	382/ 6.5	336/ 6.5	275/ 6.5	214/ 6.7	185/ 6.7
	9	147/ 9.5	167/ 9.2	214/ 9.2	270/ 8.7	321/ 8.5	359/ 7.9	379/ 7.9	378/ 7.5	358/ 7.5	320/ 7.3	271/ 7.5	225/ 7.5	205/ 7.7
	11	147/11.6	161/11.6	196/11.2	238/ 9.2	277/ 9.0	307/ 8.7	322/ 8.5	322/ 8.5	306/ 8.3	276/ 8.1	239/ 8.1	205/ 8.1	191/ 8.3
	13	136/12.1	146/12.1	172/12.1	204/11.6	235/11.6	257/ 9.0	269/ 8.7	268/ 8.7	255/ 8.5	232/ 8.5	203/ 8.5	177/ 8.5	167/ 8.5
	15	120/13.1	128/12.8	149/12.8	174/12.6	198/12.1	216/12.1	225/ 9.0	225/ 9.0	214/ 8.7	195/ 8.7	172/ 8.7	152/ 8.7	143/ 8.7
	17	105/13.4	112/13.4	128/13.1	149/13.1	168/13.1	183/12.6	190/12.6	189/12.6	180/ 8.7	165/ 8.7	146/ 8.7	129/ 8.7	123/ 8.7
	19	091/14.0	097/14.0	111/14.0	128/14.0	144/13.7	156/13.4	162/13.4	161/13.1	154/12.6	140/12.6	124/12.6	111/12.6	105/12.6
10	7	080/14.3	084/14.3	096/14.3	111/14.3	125/14.3	135/14.3	140/14.0	139/14.0	132/13.4	121/13.1	107/12.8	096/12.8	091/12.8
	9	112/ 9.5	139/ 9.5	201/ 7.5	271/ 7.5	335/ 7.3	383/ 7.0	409/ 7.0	411/ 6.8	389/ 6.7	345/ 6.7	285/ 6.7	224/ 6.7	195/ 6.8
	11	138/12.8	158/11.6	204/11.6	261/ 9.5	315/ 7.7	357/ 7.7	381/ 7.7	385/ 7.5	368/ 7.5	333/ 7.5	286/ 7.5	240/ 7.7	220/ 7.7
	13	140/13.7	154/13.4	188/12.8	231/11.6	273/11.6	306/ 9.2	325/ 8.7	329/ 8.7	316/ 8.1	289/ 8.1	254/ 8.1	221/ 8.3	207/ 8.3
	15	130/14.3	140/14.3	166/14.0	199/13.4	231/12.8	257/12.1	272/ 9.2	275/ 9.0	264/ 8.7	237/ 8.5	216/ 8.5	191/ 8.7	181/ 8.7
	17	115/14.6	123/14.6	144/14.3	170/14.0	195/13.4	216/13.1	227/12.6	229/ 9.2	221/ 9.0	204/ 9.0	182/ 9.0	162/ 9.0	154/ 9.0
	19	100/15.3	107/15.0	124/15.0	145/14.3	166/14.3	182/13.7	192/13.4	193/12.8	186/ 9.2	172/ 9.0	154/ 9.0	138/ 9.2	131/ 9.2
15	7	076/15.3	081/15.3	093/15.3	107/15.3	125/15.0	142/14.6	156/14.3	163/14.0	164/13.4	158/13.1	146/ 9.2	131/ 9.2	118/ 9.2
	9	076/15.7	081/15.7	093/15.7	108/15.3	123/15.3	134/15.0	141/14.6	141/14.6	136/14.0	125/13.7	112/ 9.2	101/ 9.2	097/ 9.2
	11	104/14.3	130/14.3	191/ 7.9	263/ 7.9	328/ 7.7	379/ 7.7	407/ 7.5	412/ 7.3	392/ 7.0	350/ 6.3	292/ 6.4	231/ 6.7	201/ 6.7
	13	129/14.3	148/14.3	194/14.3	252/14.3	309/ 8.3	354/ 8.1	381/ 8.1	389/ 7.9	375/ 7.7	342/ 7.7	296/ 7.7	252/ 7.7	232/ 7.7
	15	131/17.5	144/17.5	179/17.5	223/17.5	267/17.5	304/ 8.5	327/ 8.3	334/ 8.3	324/ 8.3	299/ 8.3	265/ 8.3	233/ 8.3	219/ 8.3
	17	120/17.5	131/17.5	157/17.5	192/17.5	226/17.5	255/12.1	273/ 8.7	279/ 8.7	271/ 8.5	252/ 8.5	226/ 8.5	202/ 8.7	192/ 8.7
	19	106/17.5	115/17.5	136/17.5	163/17.5	191/17.5	214/14.6	228/12.1	233/ 9.0	226/ 9.0	211/ 9.0	190/ 9.0	171/ 9.0	163/ 9.0
20	7	093/17.5	100/17.5	117/17.5	140/17.5	162/17.5	181/14.6	192/14.6	196/12.6	190/ 9.0	177/ 9.0	160/ 9.2	145/ 9.2	138/ 9.2
	9	081/17.5	087/17.5	101/17.5	120/17.5	139/17.5	154/15.0	164/15.0	166/14.6	161/13.1	150/ 9.2	136/ 9.2	123/ 9.2	118/ 9.2
	11	070/17.5	075/17.5	088/17.5	104/17.5	120/17.5	133/17.5	141/15.3	143/15.0	138/14.6	124/14.0	117/ 9.2	106/ 9.5	101/ 9.5
	13	094/13.4	120/13.4	182/13.4	254/13.4	322/13.4	375/13.4	406/13.4	414/ 6.3	396/ 6.3	356/ 6.3	298/ 6.3	237/ 6.7	208/ 6.7
	15	114/19.0	133/13.4	181/13.4	242/13.4	301/13.4	350/13.4	381/ 8.5	392/ 8.3	381/ 8.1	350/ 7.9	306/ 7.7	262/ 7.7	242/ 7.7
	17	114/19.0	128/19.0	165/19.0	212/13.4	260/13.4	300/13.4	327/ 8.7	338/ 8.7	331/ 8.5	308/ 8.5	275/ 8.3	244/ 8.5	230/ 8.5
	19	104/19.0	116/19.0	144/19.0	181/19.0	219/19.0	251/13.4	273/13.4	282/ 9.0	277/ 9.0	260/ 8.7	235/ 8.7	211/ 8.7	201/ 9.0
25	7	081/16.5	107/16.5	169/16.5	243/16.5	313/16.5	367/16.5	402/16.5	411/16.5	396/ 6.3	358/ 6.3	302/ 6.5	242/ 6.7	213/ 6.7
	9	094/16.5	114/16.5	164/16.5	227/16.5	290/16.5	342/16.5	377/16.5	392/16.5	384/16.5	356/ 7.5	313/ 7.5	270/ 7.5	250/ 7.7
	11	093/16.5	108/16.5	147/16.5	197/16.5	249/16.5	293/16.5	324/16.5	339/16.5	331/16.5	315/ 9.0	283/ 8.3	252/ 8.3	239/ 8.5
	13	085/16.5	097/16.5	128/16.5	168/16.5	209/16.5	245/16.5	271/16.5	289/16.5	281/16.5	266/ 9.2	242/ 9.0	219/ 9.0	209/ 9.0
	15	076/16.5	086/16.5	111/16.5	143/16.5	176/16.5	205/16.5	226/16.5	239/16.5	235/16.5	223/ 9.2	204/ 9.2	186/ 9.2	178/ 9.2
	17	067/16.5	076/16.5	096/16.5	122/16.5	149/16.5	173/16.5	190/16.5	199/16.5	197/16.5	187/ 9.5	167/ 9.5	157/ 9.5	151/ 9.5
	19	059/16.5	066/16.5	083/16.5	105/16.5	128/16.5	148/16.5	162/16.5	168/16.5	167/16.5	158/ 9.8	145/ 9.5	133/ 9.5	128/ 9.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS VEM DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM BL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.133/ 9.0	.144/ 9.0	.168/ 8.7	.195/ 8.3	.218/ 7.5	.234/ 7.3	.240/ 7.1	.235/ 7.1	.220/ 7.1	.198/ 7.1	.174/ 7.1	.155/ 7.3	.147/ 7.3
9	9	.216/11.6	.221/11.6	.234/11.5	.250/11.2	.266/10.8	.274/ 9.5	.286/ 9.0	.287/ 8.5	.282/ 8.3	.273/ 8.3	.262/ 8.5	.255/ 8.5	.252/ 8.5
11	13	.273/13.1	.275/13.1	.279/12.8	.284/12.6	.290/12.1	.296/11.6	.301/11.2	.305/10.1	.308/ 9.8	.309/ 9.8	.310/ 9.8	.310/ 9.8	.310/ 9.8
13	15	.300/14.3	.300/14.3	.299/14.3	.298/14.3	.298/14.3	.297/14.3	.297/14.3	.297/14.3	.297/14.3	.297/14.3	.297/14.3	.297/14.3	.297/14.3
15	17	.304/15.7	.308/15.7	.305/15.7	.301/15.3	.297/15.3	.294/15.0	.290/14.6	.286/14.2	.282/13.8	.278/13.4	.274/13.0	.270/12.6	.266/12.2
17	19	.307/17.5	.308/17.5	.302/17.5	.297/17.5	.292/17.5	.286/17.0	.280/16.5	.274/16.0	.268/15.5	.262/15.0	.256/14.5	.250/14.0	.244/13.5
19	21	.302/19.6	.309/19.6	.300/19.6	.294/19.0	.286/18.5	.280/18.0	.274/17.5	.268/17.0	.262/16.5	.256/16.0	.250/15.5	.244/15.0	.238/14.5
21		.296/21.7	.295/21.7	.291/21.7	.286/21.7	.282/20.9	.279/20.9	.278/20.3	.281/20.3	.287/19.6	.295/19.6	.301/19.6	.306/19.6	.308/19.6
10	7	.141/12.8	.124/12.8	.147/12.8	.173/ 9.5	.196/ 7.3	.212/ 7.3	.219/ 7.3	.216/ 7.1	.203/ 7.1	.184/ 7.1	.162/ 7.3	.145/ 7.3	.138/ 7.3
9	9	.193/14.6	.198/14.6	.211/14.3	.227/14.3	.244/12.8	.258/ 9.8	.268/ 9.0	.272/ 8.7	.270/ 8.5	.264/ 8.5	.256/ 8.5	.250/ 8.5	.244/ 8.5
11	13	.250/15.3	.252/15.3	.256/15.3	.263/15.3	.270/15.0	.274/14.6	.278/14.2	.281/13.7	.284/13.2	.287/12.7	.290/12.2	.293/11.7	.296/11.2
13	15	.278/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1	.279/16.1
15	17	.289/17.5	.289/17.5	.287/17.5	.284/17.5	.281/17.5	.278/17.5	.274/17.5	.270/17.5	.266/17.5	.262/17.5	.258/17.5	.254/17.5	.250/17.5
17	19	.290/19.0	.289/19.0	.286/19.0	.282/18.5	.277/18.5	.272/18.0	.267/17.5	.262/17.0	.257/16.5	.252/16.0	.247/15.5	.242/15.0	.237/14.5
19	21	.287/20.9	.286/20.9	.283/20.9	.279/20.9	.275/20.3	.270/20.3	.265/20.3	.260/20.3	.255/20.3	.250/20.3	.245/20.3	.240/20.3	.235/20.3
21		.284/23.3	.283/22.4	.280/22.4	.276/22.4	.272/21.7	.267/21.7	.262/21.7	.257/21.7	.252/21.7	.247/21.7	.242/21.7	.237/21.7	.232/21.7
15	7	.100/14.3	.110/14.3	.132/14.3	.157/14.3	.179/14.3	.195/ 7.5	.202/ 7.5	.200/ 7.3	.188/ 7.3	.171/ 7.3	.150/ 7.3	.133/ 7.5	.126/ 7.5
9	9	.175/17.5	.180/17.5	.193/17.5	.210/17.5	.227/17.5	.243/14.3	.253/ 8.7	.258/ 8.5	.257/ 8.5	.252/ 8.5	.245/ 8.5	.239/ 8.5	.237/ 8.5
11	13	.230/20.3	.232/20.3	.237/20.3	.245/19.6	.254/17.5	.264/17.5	.273/17.5	.281/17.5	.286/17.5	.292/17.5	.297/17.5	.303/17.5	.308/17.5
13	15	.259/20.3	.259/20.3	.260/20.3	.262/20.3	.265/20.3	.269/20.3	.271/20.3	.274/20.3	.276/20.3	.278/20.3	.280/20.3	.282/20.3	.284/20.3
15	17	.271/20.3	.273/20.3	.270/20.3	.267/20.3	.264/20.3	.261/20.3	.258/20.3	.255/20.3	.252/20.3	.249/20.3	.246/20.3	.243/20.3	.240/20.3
17	19	.274/20.3	.273/20.3	.271/20.3	.269/20.3	.267/20.3	.265/20.3	.263/20.3	.261/20.3	.259/20.3	.257/20.3	.255/20.3	.253/20.3	.251/20.3
19	21	.273/22.4	.272/22.4	.270/22.4	.267/22.4	.264/22.4	.261/22.4	.258/22.4	.255/22.4	.252/22.4	.249/22.4	.246/22.4	.243/22.4	.240/22.4
21		.272/25.1	.271/24.2	.269/24.2	.266/24.2	.263/23.3	.260/23.3	.257/23.3	.254/23.3	.251/23.3	.248/23.3	.245/23.3	.242/23.3	.239/23.3
20	7	.091/13.4	.100/13.4	.121/13.4	.145/13.4	.167/13.4	.182/13.4	.190/13.4	.188/13.4	.178/ 7.5	.161/ 7.5	.141/ 7.5	.123/ 7.5	.116/ 7.5
9	9	.161/23.3	.165/23.3	.178/19.0	.195/19.0	.214/19.0	.230/19.0	.242/13.4	.248/ 8.7	.248/ 8.5	.243/ 8.5	.236/ 8.5	.230/ 8.5	.228/ 8.5
11	13	.213/23.3	.215/23.3	.221/23.3	.229/23.3	.240/19.0	.251/19.0	.263/13.0	.270/13.0	.279/12.1	.284/ 9.8	.287/ 9.8	.288/ 9.8	.288/ 9.8
13	15	.241/26.2	.242/26.2	.244/26.2	.247/26.2	.252/26.2	.259/23.3	.268/13.0	.277/13.0	.287/12.1	.296/11.2	.303/11.2	.308/11.2	.310/11.2
15	17	.255/26.2	.255/26.2	.254/26.2	.252/26.2	.250/26.2	.247/26.2	.244/26.2	.241/26.2	.238/26.2	.235/26.2	.232/26.2	.229/26.2	.226/26.2
17	19	.259/26.2	.259/26.2	.258/26.2	.256/26.2	.254/26.2	.251/26.2	.248/26.2	.245/26.2	.242/26.2	.239/26.2	.236/26.2	.233/26.2	.230/26.2
19	21	.260/27.3	.260/27.3	.258/27.3	.256/27.3	.254/27.3	.251/27.3	.248/27.3	.245/27.3	.242/27.3	.239/27.3	.236/27.3	.233/27.3	.230/27.3
21		.260/27.3	.259/27.3	.258/27.3	.256/27.3	.254/27.3	.251/27.3	.248/27.3	.245/27.3	.242/27.3	.239/27.3	.236/27.3	.233/27.3	.230/27.3
25	7	.086/16.5	.094/16.5	.114/16.5	.137/16.5	.158/16.5	.174/16.5	.181/16.5	.180/16.5	.171/16.5	.155/ 7.5	.134/ 7.7	.116/ 7.7	.109/ 7.7
9	9	.152/16.5	.156/16.5	.169/16.5	.185/16.5	.204/16.5	.221/16.5	.235/16.5	.242/16.5	.244/16.5	.240/ 8.3	.233/ 8.3	.227/ 8.3	.225/ 8.5
11	13	.200/33.1	.202/33.1	.208/33.1	.217/33.1	.229/33.1	.246/33.1	.263/33.1	.267/33.1	.276/33.1	.281/ 9.8	.284/ 9.5	.286/ 9.2	.286/ 9.2
13	15	.227/33.1	.228/33.1	.230/33.1	.234/33.1	.240/33.1	.249/33.1	.260/33.1	.270/33.1	.281/33.1	.292/33.1	.303/33.1	.314/33.1	.325/33.1
15	17	.241/33.1	.241/33.1	.241/33.1	.242/33.1	.245/33.1	.251/33.1	.259/33.1	.270/33.1	.281/33.1	.292/33.1	.303/33.1	.314/33.1	.325/33.1
17	19	.247/33.1	.246/33.1	.245/33.1	.244/33.1	.243/33.1	.242/33.1	.241/33.1	.240/33.1	.239/33.1	.238/33.1	.237/33.1	.236/33.1	.235/33.1
19	21	.248/33.1	.247/33.1	.246/33.1	.245/33.1	.244/33.1	.243/33.1	.242/33.1	.241/33.1	.240/33.1	.239/33.1	.238/33.1	.237/33.1	.236/33.1
21		.250/33.1	.249/33.1	.248/33.1	.246/33.1	.245/33.1	.244/33.1	.243/33.1	.242/33.1	.241/33.1	.240/33.1	.239/33.1	.238/33.1	.237/33.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 32.3 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.099/8.7	.112/8.7	.139/7.9	.169/7.1	.196/6.4	.215/6.4	.224/6.5	.222/6.5	.210/6.7	.190/6.8	.166/7.0	.146/7.1	.138/7.1	
	9	.130/11.2	.137/11.2	.155/11.2	.177/10.8	.199/9.7	.217/8.1	.229/7.9	.233/7.7	.231/7.9	.222/7.9	.211/8.1	.202/8.1	.199/8.1	
	11	.145/12.1	.149/12.1	.158/12.1	.171/12.1	.186/11.6	.200/10.5	.211/9.2	.218/8.7	.222/8.7	.222/8.7	.208/8.7	.209/9.0	.217/9.0	
	13	.145/13.4	.147/13.4	.152/13.4	.160/13.1	.169/12.6	.179/12.1	.188/11.2	.196/10.6	.202/9.8	.206/9.8	.208/9.8	.209/9.8	.210/9.8	
	15	.138/14.3	.143/14.3	.142/14.3	.146/14.0	.152/13.7	.159/13.1	.166/12.6	.174/11.6	.180/11.2	.186/11.2	.190/11.2	.192/11.2	.193/11.2	
	17	.127/15.7	.128/15.3	.130/15.3	.132/15.3	.136/15.0	.141/14.5	.147/13.0	.154/13.1	.160/12.6	.166/12.6	.170/12.6	.173/12.6	.174/12.6	
	19	.117/17.0	.117/16.5	.118/16.5	.120/16.5	.123/16.1	.126/15.5	.131/15.0	.137/15.0	.143/14.3	.148/14.3	.152/13.4	.155/12.8	.156/12.8	
	21	.107/17.5	.107/17.5	.108/17.5	.109/18.0	.111/18.0	.114/17.5	.118/17.5	.123/17.0	.128/16.5	.133/16.1	.137/14.6	.140/14.3	.141/14.3	
10	7	.071/12.8	.083/12.8	.111/7.3	.142/7.0	.170/6.7	.191/6.7	.204/6.7	.207/6.7	.200/6.8	.185/6.8	.166/7.0	.149/7.1	.142/7.1	
	9	.097/14.3	.105/14.3	.123/14.3	.148/12.8	.174/9.5	.197/7.7	.216/7.7	.228/7.7	.232/7.9	.231/7.9	.225/8.1	.220/8.1	.217/8.1	
	11	.112/15.0	.116/15.0	.128/15.0	.144/14.6	.164/12.8	.184/9.8	.203/9.0	.218/8.7	.229/8.7	.239/8.7	.238/8.7	.239/9.0	.240/9.0	
	13	.115/15.7	.117/15.7	.124/15.7	.135/15.3	.150/14.6	.166/13.4	.182/11.6	.197/10.1	.210/9.8	.219/9.8	.226/9.8	.230/9.8	.231/9.8	
	15	.111/16.5	.113/16.5	.117/16.1	.125/16.1	.135/15.3	.148/14.5	.162/13.4	.175/12.1	.187/11.2	.198/10.8	.205/10.5	.210/10.1	.211/10.1	
	17	.105/17.5	.106/17.5	.109/17.5	.114/17.0	.122/16.5	.132/15.7	.144/14.6	.155/13.7	.166/12.8	.176/12.6	.183/12.6	.188/12.6	.190/12.1	
	19	.097/18.5	.098/18.5	.100/18.5	.105/18.0	.111/17.5	.119/17.0	.128/16.5	.138/15.3	.148/14.3	.157/14.3	.164/13.7	.168/12.8	.170/12.8	
	21	.090/19.6	.091/19.6	.093/19.6	.096/19.6	.101/19.0	.108/18.5	.115/17.5	.124/17.0	.133/16.5	.140/16.1	.147/14.6	.150/14.3	.152/14.3	
15	7	.051/14.3	.064/14.3	.091/7.5	.122/7.3	.151/7.1	.174/7.0	.189/7.0	.195/7.0	.192/7.0	.180/7.0	.162/7.1	.147/7.3	.140/7.3	
	9	.072/17.5	.080/17.5	.100/17.5	.127/14.3	.156/7.9	.184/7.9	.208/7.9	.224/7.9	.233/7.9	.235/8.1	.233/8.1	.229/8.1	.227/8.1	
	11	.086/19.6	.090/19.6	.104/19.6	.124/17.5	.148/11.6	.173/8.7	.197/8.7	.218/8.7	.234/8.7	.244/8.7	.250/9.0	.253/9.0	.254/9.0	
	13	.090/20.3	.093/20.3	.102/20.3	.116/20.3	.135/17.5	.156/15.0	.178/12.8	.198/10.1	.216/9.5	.229/9.8	.239/9.8	.244/9.8	.246/9.8	
	15	.085/20.3	.091/20.3	.098/20.3	.108/20.3	.123/17.5	.140/15.0	.159/12.8	.177/12.1	.193/11.2	.207/10.8	.217/10.5	.223/10.1	.225/10.1	
	17	.085/20.3	.087/20.3	.092/20.3	.100/20.3	.111/20.3	.125/17.5	.141/15.0	.157/14.3	.172/12.8	.184/12.6	.194/11.2	.200/11.2	.202/11.2	
	19	.081/20.3	.082/20.3	.086/20.3	.092/20.3	.101/20.3	.113/19.6	.126/17.5	.140/15.3	.157/14.6	.164/14.3	.173/14.0	.178/13.1	.180/12.8	
	21	.076/22.4	.077/21.7	.080/21.7	.085/20.9	.093/20.3	.102/20.3	.114/18.0	.125/17.5	.137/16.5	.147/16.1	.154/14.6	.159/14.3	.161/14.3	
20	7	.038/13.4	.050/13.4	.077/13.4	.108/13.4	.138/13.4	.163/7.0	.181/7.0	.189/7.0	.187/7.1	.176/7.1	.160/7.3	.144/7.3	.137/7.3	
	9	.053/15.0	.062/15.0	.083/15.0	.113/13.4	.146/13.4	.178/7.9	.205/7.9	.225/7.9	.237/7.9	.242/8.1	.241/8.1	.238/8.1	.236/8.1	
	11	.064/23.3	.070/23.3	.085/23.3	.109/19.0	.137/19.0	.167/9.0	.196/8.7	.221/8.7	.241/8.7	.254/8.7	.263/8.7	.267/8.7	.268/8.7	
	13	.069/23.3	.073/23.3	.084/23.3	.102/23.3	.125/19.0	.151/13.4	.178/9.8	.202/9.8	.223/9.8	.239/9.8	.251/9.8	.258/9.8	.260/9.8	
	15	.070/26.2	.073/26.2	.081/26.2	.095/23.3	.113/19.0	.135/13.4	.158/13.4	.180/11.2	.200/11.2	.216/10.8	.228/10.5	.235/10.5	.238/10.5	
	17	.069/26.2	.071/26.2	.077/26.2	.088/26.2	.103/23.3	.121/19.0	.140/14.6	.159/13.4	.177/13.4	.192/11.6	.208/11.2	.211/11.2	.213/11.2	
	19	.066/26.2	.068/26.2	.073/26.2	.082/26.2	.094/23.3	.109/19.0	.125/19.0	.142/15.3	.158/14.6	.171/14.3	.181/13.4	.187/12.6	.190/12.6	
	21	.063/27.3	.065/27.3	.069/26.2	.076/26.2	.086/23.3	.099/23.3	.113/19.0	.127/19.0	.141/16.5	.152/16.5	.161/15.0	.167/14.6	.169/14.6	
25	7	.031/16.5	.042/16.5	.068/16.5	.100/16.5	.131/16.5	.157/16.5	.176/7.0	.185/7.0	.184/7.1	.175/7.1	.159/7.5	.142/7.7	.135/7.7	
	9	.034/16.5	.048/16.5	.072/16.5	.104/16.5	.141/16.5	.176/16.5	.207/7.7	.231/7.9	.246/7.9	.253/8.1	.254/8.1	.251/8.3	.250/8.3	
	11	.047/16.5	.054/16.5	.070/16.5	.092/16.5	.119/16.5	.150/16.5	.181/16.5	.210/9.2	.234/9.0	.254/9.0	.267/9.0	.276/9.0	.278/9.0	
	13	.052/33.1	.057/33.1	.070/33.1	.085/33.1	.119/16.5	.150/16.5	.181/16.5	.210/9.2	.234/9.0	.254/9.0	.267/9.0	.276/9.0	.278/9.0	
	15	.054/33.1	.058/33.1	.068/33.1	.085/33.1	.107/16.5	.133/16.5	.160/16.5	.186/11.2	.209/10.8	.228/10.1	.242/10.1	.251/10.1	.254/10.1	
	17	.054/33.1	.057/33.1	.065/33.1	.079/33.1	.107/16.5	.133/16.5	.160/16.5	.186/11.2	.209/10.8	.228/10.1	.242/10.1	.251/10.1	.254/10.1	
	19	.054/33.1	.056/33.1	.062/33.1	.073/33.1	.108/16.5	.136/16.5	.166/16.5	.196/16.5	.226/16.5	.256/16.5	.286/16.5	.316/16.5	.346/16.5	
	21	.052/33.1	.054/33.1	.060/33.1	.069/33.1	.101/33.1	.126/16.5	.153/16.5	.180/16.5	.207/16.5	.234/16.5	.261/16.5	.288/16.5	.315/16.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS DUTAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK HULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES.													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.074/ 9.5	.083/ 9.5	.101/ 9.2	.120/ 9.2	.136/ 9.2	.145/ 8.7	.147/ 8.7	.140/ 8.3	.126/ 7.9	.106/ 7.9	.084/ 7.7	.064/ 7.7	.055/ 7.7	
	9	.096/ 9.5	.105/ 9.5	.126/ 9.5	.150/ 9.5	.170/ 9.2	.183/ 9.2	.187/ 9.2	.182/ 9.2	.168/ 9.2	.147/ 9.0	.122/ 9.0	.102/ 9.0	.093/ 9.0	
	11	.101/ 9.5	.109/ 9.5	.128/ 9.5	.150/ 9.5	.170/ 9.5	.183/ 9.5	.187/ 9.5	.183/ 9.2	.170/ 9.2	.151/ 9.2	.129/ 9.2	.110/ 9.2	.102/ 9.2	
	13	.104/15.0	.115/15.0	.132/15.0	.152/14.6	.169/ 9.5	.181/ 9.5	.184/ 9.5	.179/ 9.2	.166/ 9.2	.147/ 9.2	.126/ 9.2	.108/ 9.2	.101/ 9.2	
	15	.115/17.0	.122/16.5	.138/16.5	.153/16.1	.175/16.1	.185/16.1	.187/15.7	.181/15.7	.167/15.3	.148/15.3	.126/15.0	.108/ 9.2	.101/ 9.2	
	17	.120/18.5	.127/18.5	.144/18.5	.163/18.0	.180/18.0	.190/18.0	.192/17.5	.185/17.5	.170/17.5	.150/17.0	.128/17.0	.110/17.0	.103/17.0	
	19	.123/19.6	.130/19.6	.147/19.6	.167/19.0	.184/19.0	.194/19.0	.196/19.0	.189/19.0	.174/19.0	.154/19.0	.131/19.0	.113/19.6	.105/19.6	
10	7	.076/ 9.8	.085/ 9.8	.104/ 9.8	.124/ 9.8	.139/ 9.5	.146/ 9.5	.145/ 9.5	.136/ 9.0	.119/ 7.9	.098/ 7.9	.074/ 7.7	.054/ 7.5	.045/ 7.5	
	9	.094/ 9.8	.103/ 9.8	.123/ 9.8	.146/ 9.5	.164/ 9.5	.174/ 9.5	.176/ 9.5	.169/ 9.2	.154/ 9.2	.132/ 9.2	.109/ 9.2	.088/ 9.2	.080/ 9.2	
	11	.110/15.0	.117/14.6	.134/14.6	.153/14.3	.169/ 9.5	.179/ 9.5	.181/ 9.5	.176/ 9.5	.161/ 9.5	.142/ 9.5	.121/ 9.5	.103/ 9.8	.095/ 9.8	
	13	.123/16.1	.129/16.1	.144/15.7	.161/15.7	.176/15.3	.184/15.0	.184/15.0	.176/14.6	.161/ 9.5	.142/ 9.8	.121/ 9.8	.103/10.1	.097/10.1	
	15	.132/17.5	.138/17.5	.152/17.5	.169/17.0	.183/17.0	.190/16.5	.189/16.5	.180/15.7	.163/15.7	.143/15.7	.121/15.3	.103/10.1	.094/10.1	
	17	.136/19.0	.142/19.0	.157/19.0	.173/18.5	.189/18.5	.196/18.0	.194/18.0	.184/17.5	.167/17.5	.145/17.5	.122/17.0	.104/17.0	.097/17.0	
	19	.138/20.9	.144/20.9	.160/20.3	.178/20.3	.192/20.3	.200/19.6	.198/19.6	.188/19.6	.171/19.6	.148/19.6	.125/19.6	.106/19.6	.099/19.6	
15	7	.096/14.3	.102/14.3	.116/14.3	.131/14.3	.141/ 8.5	.145/ 8.5	.141/ 8.5	.129/ 8.5	.112/ 8.3	.090/ 8.3	.066/ 7.9	.046/ 7.7	.039/ 7.7	
	9	.120/17.5	.125/17.5	.139/17.5	.155/17.5	.172/14.3	.172/14.3	.169/ 9.0	.158/ 9.0	.141/ 9.0	.119/ 9.0	.095/ 9.0	.075/ 9.0	.067/ 9.2	
	11	.141/17.5	.146/17.5	.158/17.5	.171/17.5	.181/17.5	.185/17.5	.181/14.6	.170/ 9.5	.152/ 9.5	.131/ 9.5	.109/ 9.8	.091/10.1	.083/10.1	
	13	.153/17.5	.158/17.5	.169/17.5	.182/17.5	.191/17.5	.194/17.5	.188/15.7	.175/15.3	.156/15.0	.134/10.1	.112/10.5	.094/10.8	.087/10.8	
	15	.158/19.6	.163/19.6	.175/19.6	.189/19.6	.197/17.5	.201/17.5	.195/17.5	.180/17.5	.160/15.7	.137/15.7	.114/15.3	.096/11.2	.084/11.2	
	17	.159/19.6	.164/19.6	.177/19.6	.192/19.6	.202/19.6	.205/18.5	.199/18.5	.185/18.0	.164/17.5	.140/17.5	.116/17.3	.097/17.0	.089/17.0	
	19	.157/21.7	.163/21.7	.177/20.9	.193/20.9	.204/20.9	.208/20.3	.203/20.3	.189/20.3	.168/19.6	.143/19.6	.119/19.6	.099/19.6	.092/19.6	
20	7	.136/23.3	.162/23.3	.176/22.4	.193/22.4	.206/22.4	.210/21.7	.206/20.9	.192/20.9	.172/20.9	.147/20.3	.122/20.3	.102/20.3	.094/20.3	
	9	.192/19.0	.193/19.0	.195/19.0	.196/13.4	.193/13.4	.183/13.4	.165/13.4	.140/13.4	.114/ 8.7	.087/ 8.7	.062/ 8.3	.041/ 7.5	.033/ 7.7	
	11	.200/19.0	.202/19.0	.207/19.0	.211/19.0	.211/19.0	.204/19.0	.188/19.0	.165/19.0	.139/ 9.2	.113/ 9.2	.088/ 9.2	.067/ 9.2	.059/ 9.2	
	13	.204/23.3	.207/23.3	.212/23.3	.218/19.0	.220/19.0	.214/19.0	.199/19.0	.177/19.0	.151/ 9.5	.126/ 9.8	.102/10.1	.083/10.5	.076/10.5	
	15	.202/23.3	.205/23.3	.212/23.3	.220/23.3	.223/19.0	.218/19.0	.204/19.0	.182/19.0	.157/15.3	.131/14.0	.107/11.2	.090/11.2	.083/11.2	
	17	.197/23.3	.201/23.3	.210/23.3	.220/23.3	.225/19.0	.221/19.0	.208/19.0	.187/19.0	.161/17.0	.134/15.7	.110/15.7	.092/11.6	.085/11.6	
	19	.191/23.3	.195/23.3	.206/23.3	.217/23.3	.224/23.3	.222/19.0	.210/19.0	.190/19.0	.164/19.0	.137/17.5	.112/17.5	.093/17.0	.085/17.0	
25	7	.264/16.5	.266/16.5	.269/16.5	.271/16.5	.265/16.5	.246/16.5	.214/16.5	.172/16.5	.127/16.5	.088/16.5	.058/ 9.2	.037/ 7.5	.029/ 7.5	
	9	.300/16.5	.300/16.5	.300/16.5	.297/16.5	.286/16.5	.265/16.5	.232/16.5	.189/16.5	.146/16.5	.109/16.5	.081/ 9.2	.061/ 9.2	.052/ 9.2	
	11	.282/16.5	.283/16.5	.284/16.5	.284/16.5	.286/16.5	.265/16.5	.233/16.5	.196/16.5	.156/16.5	.122/16.5	.096/10.1	.077/10.5	.070/10.5	
	13	.282/24.2	.283/24.2	.284/24.2	.284/24.2	.287/16.5	.265/16.5	.233/16.5	.198/16.5	.162/16.5	.129/16.5	.103/12.6	.085/11.6	.074/11.6	
	15	.265/29.9	.266/29.9	.267/29.9	.267/29.9	.269/24.2	.255/16.5	.231/16.5	.199/16.5	.165/16.5	.133/16.5	.107/15.3	.088/12.6	.081/12.6	
	17	.248/29.9	.250/29.9	.256/29.9	.261/29.9	.260/24.2	.250/24.2	.229/24.2	.200/16.5	.167/16.5	.136/16.5	.108/17.5	.089/17.0	.082/17.0	
	19	.233/29.9	.236/29.9	.243/29.9	.251/29.9	.253/24.2	.245/24.2	.227/24.2	.200/24.2	.169/20.3	.138/20.3	.111/19.6	.091/19.6	.083/19.6	
21	.222/29.9	.226/29.9	.234/29.9	.243/29.9	.247/24.2	.242/24.2	.226/24.2	.201/24.2	.172/20.9	.141/20.9	.114/20.3	.093/20.3	.085/20.3		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

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NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

SHORTCUTTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OR
HELICOPTER DECK HULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V T		SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	0.53/9.5	0.61/9.2	0.79/9.2	0.94/9.0	1.13/8.7	1.23/8.3	1.27/7.9	1.23/7.5	1.12/7.3	0.96/7.1	0.76/7.1	0.58/7.1	0.49/7.3
	9	0.64/9.5	0.72/9.5	0.89/9.5	1.09/9.2	1.27/9.2	1.39/9.2	1.44/9.2	1.41/9.0	1.31/9.0	1.15/9.0	0.96/9.0	0.79/9.0	0.72/9.0
	11	0.60/9.5	0.67/9.5	0.82/9.5	0.99/9.5	1.15/9.5	1.26/9.2	1.32/9.2	1.30/9.2	1.22/9.2	1.09/9.2	0.94/9.2	0.80/9.2	0.74/9.2
	13	0.56/9.5	0.61/9.5	0.74/9.5	0.88/9.5	0.91/9.5	0.99/9.2	1.03/9.2	1.01/9.2	0.95/9.2	0.85/9.2	0.74/9.2	0.64/9.2	0.60/9.2
	15	0.53/15.3	0.57/15.3	0.68/9.5	0.80/9.5	0.83/16.5	0.90/16.1	0.93/9.2	0.91/9.2	0.86/9.2	0.77/9.2	0.66/9.2	0.57/9.2	0.54/9.2
	17	0.50/17.0	0.54/17.0	0.63/17.0	0.74/17.0	0.83/18.0	0.83/18.0	0.85/17.5	0.83/17.5	0.78/17.5	0.70/17.0	0.61/17.0	0.52/9.2	0.49/9.2
	19	0.47/18.5	0.50/18.5	0.58/18.5	0.68/18.0	0.77/19.0	0.83/18.0	0.85/17.5	0.83/17.5	0.78/17.5	0.70/17.0	0.61/17.0	0.52/9.2	0.49/9.2
21	0.44/19.0	0.47/19.0	0.55/19.0	0.63/19.0	0.71/19.0	0.77/19.0	0.79/18.5	0.77/18.5	0.72/18.5	0.64/18.0	0.56/18.0	0.48/18.0	0.45/17.5	
10	7	0.50/9.8	0.59/9.8	0.77/9.8	0.96/9.5	1.11/9.5	1.23/7.7	1.23/7.7	1.19/7.7	1.08/7.5	0.91/7.3	0.71/7.1	0.53/7.1	0.44/7.3
	9	0.55/9.8	0.63/9.8	0.81/9.5	1.01/9.5	1.18/9.5	1.29/9.5	1.35/9.2	1.32/9.2	1.23/9.0	1.08/9.0	0.90/8.7	0.74/8.7	0.67/8.7
	11	0.55/14.3	0.61/14.3	0.76/9.5	0.93/9.5	1.08/9.5	1.19/9.5	1.25/9.5	1.24/9.5	1.17/9.2	1.05/9.2	0.91/9.5	0.78/9.5	0.72/9.5
	13	0.55/15.3	0.59/15.3	0.71/15.3	0.85/9.5	0.97/9.5	1.07/9.5	1.11/9.5	1.11/9.5	1.03/9.5	0.95/9.5	0.83/9.5	0.72/9.8	0.68/9.8
	15	0.53/16.5	0.57/16.5	0.67/16.1	0.78/15.7	0.89/15.7	0.97/15.3	1.00/9.5	0.99/9.5	0.94/9.5	0.85/9.5	0.74/9.8	0.65/10.1	0.61/10.1
	17	0.51/18.0	0.54/17.5	0.63/17.5	0.73/17.5	0.82/17.0	0.89/17.0	0.92/16.5	0.90/16.5	0.85/16.5	0.76/9.8	0.66/9.8	0.58/10.1	0.55/10.1
	19	0.48/19.0	0.51/19.0	0.59/18.5	0.68/18.5	0.76/19.0	0.82/18.0	0.84/18.0	0.83/17.5	0.77/17.5	0.70/17.5	0.60/17.0	0.53/17.0	0.50/17.0
21	0.45/20.3	0.48/20.3	0.55/19.6	0.63/19.6	0.71/19.6	0.76/19.6	0.78/19.6	0.76/19.6	0.71/19.0	0.64/19.0	0.56/19.0	0.48/19.6	0.46/19.6	
15	7	0.40/14.3	0.50/14.3	0.68/8.5	0.87/8.3	1.03/8.3	1.12/8.3	1.15/8.1	1.12/8.1	1.01/7.9	0.86/7.7	0.66/7.3	0.49/7.1	0.40/7.3
	9	0.51/17.5	0.58/17.5	0.74/17.5	0.93/9.0	1.09/9.0	1.20/9.0	1.24/9.0	1.22/8.7	1.14/8.7	1.00/8.7	0.83/8.5	0.67/8.5	0.60/8.5
	11	0.56/17.5	0.61/17.5	0.74/17.5	0.89/17.5	1.03/9.2	1.13/9.2	1.18/9.2	1.17/9.2	1.10/9.2	0.99/9.2	0.85/9.5	0.72/9.5	0.67/9.8
	13	0.57/17.5	0.61/17.5	0.71/17.5	0.84/17.5	0.95/17.5	1.04/15.0	1.08/9.5	1.07/9.5	1.01/9.5	0.91/9.8	0.79/10.1	0.69/10.5	0.64/10.5
	15	0.55/17.5	0.59/17.5	0.68/17.5	0.79/17.5	0.88/17.5	0.95/17.5	0.98/15.7	0.97/15.3	0.91/9.8	0.82/10.1	0.71/10.5	0.62/10.5	0.59/10.8
	17	0.53/19.6	0.56/19.6	0.64/19.6	0.73/17.5	0.82/17.5	0.89/17.5	0.90/17.5	0.88/17.0	0.83/17.0	0.74/16.5	0.65/10.5	0.56/10.8	0.53/11.2
	19	0.49/19.6	0.52/19.6	0.60/19.6	0.68/19.6	0.76/19.6	0.82/18.0	0.83/19.0	0.81/18.0	0.76/17.5	0.68/17.5	0.59/17.5	0.51/17.0	0.48/11.2
21	0.46/20.9	0.49/20.9	0.56/20.9	0.64/20.3	0.71/20.3	0.76/20.3	0.77/19.6	0.75/19.6	0.70/19.6	0.63/19.6	0.54/19.6	0.47/19.6	0.44/19.6	
20	7	0.42/13.4	0.50/13.4	0.68/13.4	0.86/13.4	1.01/8.7	1.10/8.7	1.12/8.7	1.08/8.7	0.98/8.5	0.83/8.3	0.64/7.0	0.46/7.1	0.38/7.1
	9	0.54/19.0	0.61/19.0	0.76/19.0	0.91/19.0	1.04/19.0	1.13/19.0	1.17/9.2	1.15/9.2	1.08/9.2	0.96/9.0	0.79/8.7	0.63/8.5	0.57/8.7
	11	0.60/23.3	0.65/23.3	0.74/19.0	0.86/19.0	0.97/19.0	1.04/19.0	1.08/19.0	1.06/9.5	1.00/9.5	0.90/9.8	0.78/10.1	0.68/10.5	0.64/9.8
	13	0.60/23.3	0.64/23.3	0.70/23.3	0.80/19.0	0.90/19.0	0.96/19.0	0.99/19.0	0.97/15.7	0.91/15.3	0.82/10.1	0.71/11.2	0.62/11.2	0.59/11.2
	15	0.58/23.3	0.61/23.3	0.67/23.3	0.75/19.0	0.83/19.0	0.89/19.0	0.91/19.0	0.89/19.0	0.83/17.0	0.74/16.5	0.65/10.5	0.56/10.8	0.53/11.2
	17	0.54/23.3	0.58/23.3	0.66/23.3	0.74/19.0	0.83/19.0	0.89/19.0	0.91/19.0	0.89/19.0	0.83/17.0	0.74/16.5	0.65/10.5	0.56/10.8	0.53/11.2
	19	0.51/23.3	0.54/23.3	0.61/23.3	0.70/23.3	0.77/19.0	0.82/19.0	0.84/19.0	0.82/19.0	0.76/19.0	0.68/17.5	0.59/17.5	0.52/11.6	0.49/11.6
21	0.48/23.3	0.50/23.3	0.57/23.3	0.65/23.3	0.72/23.3	0.77/19.0	0.79/19.0	0.76/19.0	0.70/19.0	0.63/19.6	0.54/19.6	0.47/19.6	0.44/19.6	
25	7	0.43/16.5	0.51/16.5	0.63/16.5	0.85/16.5	0.99/16.5	1.08/16.5	1.10/16.5	1.05/16.5	0.95/16.5	0.83/9.2	0.71/9.2	0.63/7.3	0.56/7.3
	9	0.56/16.5	0.62/16.5	0.76/16.5	0.92/16.5	1.06/16.5	1.15/16.5	1.18/16.5	1.15/16.5	1.06/16.5	0.92/9.2	0.75/9.0	0.60/8.7	0.54/8.7
	11	0.62/16.5	0.66/16.5	0.78/16.5	0.91/16.5	1.03/16.5	1.12/16.5	1.15/16.5	1.13/16.5	1.05/16.5	0.93/9.5	0.79/9.5	0.67/9.8	0.62/10.1
	13	0.62/16.5	0.66/16.5	0.75/16.5	0.87/16.5	0.98/16.5	1.05/16.5	1.07/16.5	1.05/16.5	0.98/16.5	0.88/9.8	0.77/10.8	0.66/11.2	0.62/11.2
	15	0.60/24.2	0.63/24.2	0.72/16.5	0.81/16.5	0.91/16.5	0.97/16.5	0.99/16.5	0.97/16.5	0.90/16.5	0.81/11.6	0.71/11.6	0.62/11.6	0.58/11.6
	17	0.57/24.2	0.60/24.2	0.68/24.2	0.77/16.5	0.85/16.5	0.90/16.5	0.91/16.5	0.89/16.5	0.83/16.5	0.74/16.5	0.65/12.6	0.57/12.6	0.53/12.6
	19	0.53/24.9	0.56/24.2	0.63/24.2	0.71/24.2	0.79/16.5	0.84/16.5	0.86/16.5	0.84/16.5	0.76/16.5	0.68/16.5	0.59/17.5	0.52/12.6	0.49/12.6
21	0.50/24.9	0.53/24.9	0.59/24.2	0.67/24.2	0.73/24.2	0.77/24.2	0.78/16.5	0.76/16.5	0.70/16.5	0.63/19.6	0.54/19.6	0.47/19.6	0.45/19.6	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DLG 26

SHORTCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF

(ACC. X 100)
HELICOPTER DECK RULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.124/9.2	.149/9.2	.206/9.2	.257/8.3	.319/7.5	.355/7.0	.370/6.8	.364/6.7	.336/6.7	.290/6.7	.231/6.7	.173/6.8	.145/6.8	
	9	.137/9.5	.159/9.5	.209/9.2	.265/9.2	.315/9.2	.351/9.0	.368/9.0	.365/8.7	.342/8.7	.302/8.5	.251/8.5	.204/8.5	.182/8.5	
	11	.121/9.5	.138/9.5	.178/9.5	.224/9.2	.266/9.2	.291/9.2	.313/9.2	.313/9.2	.296/9.0	.265/9.0	.226/9.0	.190/9.0	.175/9.0	
	13	.103/9.5	.116/9.5	.147/9.5	.184/9.2	.218/9.2	.243/9.2	.257/9.2	.257/9.2	.244/9.2	.220/9.2	.190/9.2	.162/9.2	.150/9.2	
	15	.088/9.5	.099/9.5	.123/9.5	.153/9.2	.180/9.2	.200/9.2	.211/9.2	.211/9.2	.201/9.2	.182/9.2	.157/9.2	.135/9.2	.126/9.2	
	17	.076/9.5	.085/9.5	.105/9.5	.129/9.2	.151/9.2	.167/9.2	.176/9.2	.176/9.2	.168/9.2	.152/9.2	.132/9.2	.113/9.2	.106/9.2	
	19	.067/9.5	.073/9.5	.090/9.5	.110/9.5	.128/9.2	.142/9.2	.149/9.2	.149/9.2	.142/9.2	.128/9.2	.112/9.2	.096/9.2	.090/9.2	
	21	.059/9.5	.064/9.5	.078/9.5	.095/9.5	.111/9.2	.122/9.2	.128/9.2	.128/9.2	.122/9.2	.110/9.2	.096/9.2	.083/9.2	.078/9.2	
10	7	.107/9.8	.135/9.8	.193/9.8	.256/7.7	.309/7.5	.346/7.5	.363/7.3	.358/7.0	.332/7.0	.287/7.0	.230/7.0	.172/7.0	.144/7.0	
	9	.106/9.8	.130/9.8	.182/9.5	.240/9.5	.292/9.2	.331/9.0	.352/9.0	.353/8.7	.334/8.3	.297/8.1	.249/8.1	.204/8.1	.183/8.1	
	11	.095/9.8	.113/9.8	.154/9.5	.202/9.5	.246/9.5	.280/9.2	.301/9.2	.303/9.2	.283/9.2	.266/9.2	.230/9.2	.197/9.2	.182/9.2	
	13	.084/9.8	.098/9.8	.129/9.5	.167/9.5	.202/9.5	.231/9.2	.248/9.2	.253/9.2	.245/9.2	.224/9.2	.197/9.2	.171/9.2	.151/9.2	
	15	.075/15.7	.085/15.3	.110/9.5	.140/9.5	.168/9.5	.191/9.5	.206/9.5	.210/9.2	.203/9.5	.187/9.5	.165/9.5	.145/9.8	.136/9.8	
	17	.066/16.5	.075/16.1	.095/16.1	.119/9.5	.142/9.5	.161/9.5	.172/9.5	.176/9.5	.170/9.5	.156/9.5	.138/9.5	.122/9.8	.115/9.8	
	19	.059/17.5	.066/17.0	.082/16.5	.102/16.5	.122/9.5	.137/9.5	.147/9.5	.149/9.5	.144/9.5	.133/9.5	.117/9.5	.104/9.8	.098/9.8	
	21	.052/18.0	.058/18.0	.072/17.5	.089/17.5	.105/17.5	.118/9.5	.126/9.5	.128/9.5	.124/9.5	.114/9.5	.101/9.5	.089/9.8	.084/10.1	
15	7	.078/10.5	.109/8.3	.170/8.1	.233/8.1	.288/7.9	.327/7.9	.347/7.7	.346/7.5	.323/7.3	.282/7.0	.227/6.8	.171/6.8	.143/6.8	
	9	.082/14.3	.106/14.3	.158/8.7	.215/8.5	.268/8.5	.308/8.5	.332/8.3	.337/8.3	.322/8.3	.289/8.1	.244/8.1	.201/8.1	.181/8.1	
	11	.074/17.5	.086/17.5	.136/9.0	.183/9.0	.227/9.0	.263/9.0	.286/9.0	.293/9.0	.284/9.0	.261/8.7	.228/8.7	.195/9.0	.181/9.0	
	13	.073/17.5	.086/17.5	.116/17.5	.153/9.0	.189/9.0	.219/9.0	.239/9.0	.246/9.0	.240/9.2	.222/9.2	.197/9.2	.173/9.5	.162/9.8	
	15	.067/17.5	.076/17.5	.100/17.5	.130/17.5	.159/9.0	.183/9.2	.199/9.2	.205/9.2	.201/9.2	.186/9.5	.166/9.8	.147/10.1	.139/10.1	
	17	.060/17.5	.068/17.5	.087/17.5	.111/17.5	.135/17.5	.155/9.2	.168/9.2	.173/9.2	.169/9.5	.157/9.5	.140/9.8	.125/10.1	.119/10.5	
	19	.053/19.6	.060/19.6	.076/17.5	.096/17.5	.116/17.5	.132/17.5	.143/9.2	.147/9.2	.144/9.5	.133/9.8	.119/10.1	.106/10.5	.101/10.5	
	21	.048/19.6	.053/19.6	.067/19.6	.084/17.5	.101/17.5	.115/17.5	.124/17.5	.127/9.5	.123/9.5	.115/9.8	.103/10.1	.091/10.5	.087/10.5	
20	7	.066/13.4	.098/13.4	.158/8.7	.222/8.7	.278/8.5	.319/8.5	.341/8.5	.341/7.0	.321/7.0	.281/6.5	.228/6.7	.172/6.8	.145/6.8	
	9	.071/19.0	.095/19.0	.147/9.0	.205/9.0	.258/9.0	.301/8.7	.326/8.7	.333/8.5	.320/8.5	.290/8.3	.247/8.1	.203/8.1	.183/8.1	
	11	.070/19.0	.087/19.0	.127/19.0	.174/9.0	.220/9.0	.258/9.0	.283/9.0	.293/9.0	.286/9.0	.264/9.0	.232/9.0	.200/9.0	.186/9.0	
	13	.066/19.0	.078/19.0	.109/19.0	.147/19.0	.185/9.2	.219/9.2	.238/9.2	.247/9.2	.243/9.2	.227/9.2	.203/9.2	.179/9.5	.169/9.8	
	15	.060/19.0	.070/19.0	.094/19.0	.125/19.0	.155/9.2	.181/9.2	.200/9.2	.208/9.2	.205/9.2	.192/9.5	.173/9.8	.154/10.1	.146/10.5	
	17	.054/23.3	.062/19.0	.082/19.0	.107/19.0	.132/19.0	.154/9.2	.169/9.2	.178/9.2	.173/9.5	.162/9.8	.146/10.1	.131/10.5	.125/10.8	
	19	.049/23.3	.055/23.3	.072/19.0	.093/19.0	.114/19.0	.132/19.0	.144/9.2	.149/9.2	.147/9.5	.138/9.8	.125/10.8	.112/10.8	.107/11.2	
	21	.044/23.3	.049/23.3	.063/19.0	.081/19.0	.099/19.0	.114/19.0	.124/19.0	.129/9.5	.126/9.5	.119/10.1	.107/10.8	.096/11.2	.092/11.2	
25	7	.058/16.5	.089/16.5	.148/16.5	.211/16.5	.267/9.2	.309/9.2	.332/9.2	.334/6.5	.316/6.5	.279/6.7	.227/6.7	.173/6.8	.146/6.8	
	9	.061/16.5	.084/16.5	.135/16.5	.193/16.5	.247/16.5	.291/16.5	.318/16.5	.327/9.2	.317/9.0	.289/7.9	.247/7.9	.205/8.1	.186/8.1	
	11	.060/16.5	.077/16.5	.117/16.5	.165/16.5	.212/16.5	.252/16.5	.279/16.5	.290/9.2	.285/9.2	.265/9.2	.234/9.0	.204/9.0	.190/9.0	
	13	.057/16.5	.070/16.5	.101/16.5	.140/16.5	.179/16.5	.212/16.5	.236/16.5	.248/9.5	.230/9.5	.230/9.5	.207/9.5	.184/9.8	.174/9.8	
	15	.053/16.5	.063/16.5	.098/16.5	.119/16.5	.151/16.5	.179/16.5	.199/16.5	.209/9.5	.208/9.5	.196/9.5	.178/10.1	.160/10.5	.153/10.5	
	17	.049/16.5	.057/16.5	.077/16.5	.103/16.5	.129/16.5	.152/16.5	.169/16.5	.177/16.5	.176/9.5	.166/9.8	.152/10.8	.137/11.2	.131/11.2	
	19	.044/16.5	.051/16.5	.068/16.5	.089/16.5	.111/16.5	.130/16.5	.144/16.5	.151/16.5	.150/9.8	.142/10.1	.129/11.2	.117/11.6	.112/11.6	
	21	.040/24.2	.046/16.5	.060/16.5	.078/16.5	.097/16.5	.113/16.5	.125/16.5	.130/16.5	.129/16.5	.122/10.8	.111/11.2	.101/11.6	.097/11.6	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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SHORTCUTTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
HELICOPTER DECK RULLSLEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	070/9.2	079/9.0	099/8.7	121/7.9	139/7.9	151/7.5	155/7.5	150/7.3	138/7.3	119/7.3	098/7.3	079/7.5	070/7.5
	9	118/11.6	125/11.6	141/11.6	160/11.2	177/10.1	188/9.5	193/9.2	189/9.0	178/9.0	162/9.0	144/9.0	129/9.0	124/9.0
	11	161/13.4	166/13.4	177/13.1	190/12.8	203/12.6	213/12.1	216/11.6	214/11.2	206/10.8	194/10.8	181/10.5	171/10.5	168/10.5
	13	192/15.0	195/15.0	202/14.6	212/14.3	221/14.0	228/13.7	231/13.1	229/12.8	223/12.6	215/12.6	200/12.6	190/12.6	188/12.6
	15	212/17.0	216/17.0	219/16.5	226/16.1	233/15.7	238/15.3	240/15.0	239/14.6	235/14.3	229/14.3	223/14.3	219/14.3	217/14.3
	17	224/19.0	225/18.5	229/18.0	234/18.0	239/17.5	242/17.5	243/17.0	243/16.5	241/16.5	237/16.5	233/16.5	230/16.5	228/16.5
	19	232/19.6	233/19.6	235/19.6	239/19.6	243/19.6	245/19.6	247/18.5	246/18.5	244/18.0	242/17.5	239/17.5	237/17.0	236/17.0
10	21	238/22.4	239/22.4	241/22.4	243/21.7	246/21.7	246/20.9	249/20.9	249/20.3	248/19.6	246/19.6	244/19.6	242/19.6	241/19.6
	7	061/12.8	070/12.8	090/12.8	113/7.9	132/7.5	144/7.5	149/7.5	145/7.3	134/7.3	116/7.3	094/7.3	075/7.5	066/7.5
	9	108/14.6	114/14.6	130/14.3	150/12.8	168/11.6	181/9.8	186/9.5	184/9.2	173/9.0	158/9.0	139/9.0	124/9.0	117/9.0
	11	150/15.7	155/15.7	166/15.3	181/15.0	195/14.3	206/12.6	210/12.1	208/11.2	201/11.2	189/10.8	176/10.5	165/10.5	161/10.5
	13	181/17.0	184/17.0	192/17.0	203/16.1	214/15.7	221/14.6	225/13.7	224/13.4	219/12.8	210/12.6	201/12.6	194/12.6	192/12.6
	15	203/18.5	205/18.5	210/18.0	218/18.0	226/17.5	232/16.5	235/15.7	234/15.0	231/14.6	225/14.3	219/14.3	214/14.3	212/14.3
	17	215/20.3	217/19.6	223/19.0	231/19.6	237/20.9	241/20.3	240/17.5	239/17.0	237/16.5	233/16.5	229/16.5	225/16.5	224/16.5
15	19	224/21.7	226/21.7	229/21.7	233/20.9	237/20.9	241/20.3	240/19.6	243/19.0	241/18.0	238/18.0	235/17.5	233/17.0	232/17.0
	21	232/24.2	233/24.2	235/24.2	238/23.3	241/22.4	244/21.7	246/20.9	246/20.3	245/20.3	243/19.6	241/19.6	239/19.6	238/19.6
	7	054/14.3	063/14.3	084/14.3	107/8.1	127/7.9	140/7.5	146/7.3	144/7.1	134/7.0	116/7.0	095/7.1	074/7.1	065/7.3
	9	099/17.5	106/17.5	123/17.5	144/17.5	163/11.6	177/9.2	184/9.2	183/9.2	174/9.0	158/9.0	140/9.0	123/9.0	117/9.0
	11	141/20.3	145/20.3	158/20.3	174/20.3	189/17.5	201/12.6	207/12.1	206/11.6	199/11.2	188/10.8	174/10.8	163/10.5	159/10.5
	13	172/20.3	175/20.3	184/20.3	195/20.3	207/20.3	216/15.3	221/14.3	221/13.4	216/12.8	208/12.6	199/12.6	191/12.6	188/12.6
	15	194/20.9	196/20.9	202/20.3	211/20.3	220/20.9	227/17.5	231/15.7	231/15.3	228/15.0	222/14.6	216/14.3	211/14.3	209/14.3
20	17	082/22.4	093/22.4	214/22.4	220/21.7	227/20.9	232/20.3	236/18.0	236/17.5	234/17.0	230/16.5	226/16.5	222/16.5	221/16.5
	19	218/24.2	219/24.2	222/24.2	227/23.3	232/24.2	237/20.9	239/20.3	240/19.6	236/18.0	233/17.5	230/17.0	229/17.0	228/17.0
	21	226/26.2	227/26.2	230/25.1	233/25.1	237/24.2	240/22.4	243/20.9	243/20.3	242/20.3	236/19.6	238/19.6	236/19.6	235/19.6
	7	050/13.4	059/13.4	080/13.4	103/13.4	124/13.4	139/13.4	146/7.0	145/7.0	136/7.0	119/7.1	099/7.1	079/7.5	069/7.5
	9	092/23.3	099/19.0	116/19.0	138/19.0	160/19.0	176/19.0	185/9.2	187/9.0	180/8.7	166/8.5	150/8.3	135/8.3	128/8.3
	11	132/23.3	137/23.3	150/23.3	167/23.3	185/19.0	199/19.0	207/11.6	209/11.2	204/11.2	194/10.8	182/10.5	172/10.5	164/10.5
	13	163/26.2	167/26.2	176/26.2	189/23.3	202/23.3	213/19.0	220/14.3	222/13.4	219/13.4	212/12.6	203/12.6	196/12.6	194/12.6
25	15	186/26.2	188/26.2	195/26.2	205/26.2	215/23.3	223/19.0	229/15.7	231/15.3	229/15.0	224/14.6	218/14.3	213/14.3	211/14.3
	17	081/27.3	082/27.3	207/26.2	215/26.2	222/26.2	229/23.3	233/19.0	235/17.5	234/17.0	231/16.5	227/16.5	223/16.5	221/16.5
	19	212/27.3	213/27.3	228/26.2	232/27.3	237/24.2	240/22.4	243/20.9	243/20.3	238/19.6	235/18.0	233/18.0	230/17.5	229/17.5
	21	227/27.3	228/27.3	233/27.3	237/27.3	242/26.2	245/24.2	248/23.3	248/20.9	241/20.3	238/19.6	236/19.6	234/19.6	233/19.6
	7	047/16.5	056/16.5	077/16.5	101/16.5	122/16.5	137/16.5	145/16.5	145/16.5	137/7.1	121/7.1	101/7.5	081/7.7	072/7.7
	9	087/16.5	094/16.5	112/16.5	135/16.5	158/16.5	176/16.5	189/16.5	193/16.5	189/8.3	178/8.3	164/8.3	151/8.5	145/8.5
	11	126/33.1	131/33.1	144/33.1	162/16.5	181/16.5	198/16.5	210/16.5	215/16.5	214/10.8	207/10.5	198/9.8	190/9.0	187/9.0
30	13	156/33.1	160/33.1	170/33.1	183/33.1	198/16.5	211/16.5	221/16.5	226/16.5	226/12.8	215/12.6	205/12.6	208/12.6	208/12.6
	15	179/33.1	182/33.1	189/33.1	199/33.1	210/33.1	220/16.5	228/16.5	232/16.5	230/14.6	226/14.3	222/14.3	221/14.3	221/14.3
	17	195/33.1	196/33.1	202/33.1	209/33.1	218/33.1	226/16.5	232/16.5	236/16.5	236/16.5	235/16.5	229/16.5	229/16.5	228/16.5
	19	206/33.1	211/33.1	211/33.1	217/33.1	224/33.1	230/24.2	235/20.3	238/19.6	239/19.6	238/19.6	236/18.0	234/17.5	233/17.5
	21	216/33.1	220/33.1	220/33.1	224/33.1	229/33.1	234/24.2	238/24.2	241/20.9	241/19.6	239/19.6	239/19.6	238/19.6	237/19.6
	7	048/16.5	057/16.5	078/16.5	102/16.5	123/16.5	138/16.5	146/7.0	146/7.0	137/7.1	121/7.1	101/7.5	081/7.7	072/7.7
	9	088/16.5	096/16.5	113/16.5	136/16.5	159/16.5	176/16.5	189/16.5	193/16.5	189/8.3	178/8.3	164/8.3	151/8.5	145/8.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

HELICOPTER DECK RULLSEVE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												180
		0	15	30	45	60	75	90	105	120	135	150	165	
5	7	.052/ 9.0	.062/ 8.7	.084/ 7.5	.107/ 7.1	.127/ 7.0	.140/ 7.0	.145/ 6.8	.142/ 6.7	.131/ 6.7	.114/ 6.8	.094/ 7.0	.075/ 7.1	.067/ 7.1
	9	.071/11.6	.078/11.2	.095/10.8	.114/ 9.5	.132/ 9.0	.144/ 8.5	.150/ 8.3	.149/ 8.3	.142/ 8.3	.129/ 8.3	.104/ 8.3	.081/ 8.5	.076/ 8.5
	11	.083/12.8	.088/12.6	.100/12.6	.114/12.1	.128/11.2	.139/10.8	.145/10.1	.145/ 9.8	.141/ 9.5	.132/ 9.5	.123/ 9.5	.115/ 9.8	.112/ 9.8
	13	.089/14.3	.092/14.0	.100/13.7	.111/13.4	.121/12.8	.130/12.6	.135/12.1	.136/11.6	.134/11.2	.129/11.2	.123/11.2	.118/11.2	.116/11.2
	15	.099/15.7	.092/15.3	.098/15.3	.105/15.6	.114/14.3	.120/14.0	.125/13.4	.126/13.1	.125/12.8	.122/12.6	.119/12.6	.116/12.6	.114/12.6
	17	.087/17.0	.089/17.0	.093/16.5	.099/16.1	.105/15.7	.111/15.3	.115/15.0	.116/14.6	.116/14.3	.115/14.3	.112/14.3	.110/14.3	.110/14.3
	19	.084/18.5	.085/18.5	.088/18.0	.093/17.5	.098/17.0	.102/17.0	.106/16.5	.107/16.5	.108/16.1	.107/16.1	.104/16.1	.104/16.1	.103/16.1
10	7	.037/12.8	.049/12.8	.072/ 7.3	.097/ 7.0	.118/ 7.0	.132/ 6.7	.140/ 6.7	.139/ 6.7	.130/ 6.5	.115/ 6.5	.096/ 6.3	.078/ 6.3	.070/ 7.1
	9	.054/14.3	.062/14.3	.081/12.8	.102/ 9.5	.123/ 8.7	.138/ 8.5	.147/ 8.3	.147/ 8.3	.144/ 8.3	.137/ 8.3	.119/ 8.5	.106/ 8.5	.101/ 8.5
	11	.066/15.3	.072/15.3	.085/15.0	.102/14.3	.119/11.6	.134/10.8	.142/10.1	.145/ 9.8	.143/ 9.8	.137/ 9.8	.129/ 9.8	.121/ 9.8	.118/ 9.8
	13	.073/16.1	.076/16.1	.086/16.1	.099/15.3	.113/14.3	.124/14.8	.133/12.1	.137/11.6	.137/11.2	.134/11.2	.129/11.2	.125/11.2	.123/11.2
	15	.075/17.5	.078/17.5	.085/17.0	.095/16.5	.106/15.7	.115/16.1	.123/13.7	.127/13.4	.129/12.8	.128/12.6	.125/12.6	.123/12.6	.122/12.6
	17	.074/19.0	.076/18.5	.082/18.5	.090/18.0	.099/17.0	.107/16.1	.113/15.3	.117/15.0	.119/14.6	.119/14.3	.118/14.3	.117/14.3	.116/14.3
	19	.072/20.3	.074/20.3	.078/19.6	.085/19.6	.092/18.5	.099/17.5	.104/17.0	.108/16.5	.110/16.5	.111/16.1	.111/16.1	.110/16.1	.110/16.1
15	7	.028/14.3	.040/14.3	.064/ 7.7	.090/ 6.7	.113/ 6.5	.130/ 6.5	.139/ 6.5	.140/ 6.5	.134/ 6.7	.120/ 6.7	.101/ 6.7	.082/ 6.8	.073/ 6.8
	9	.042/17.5	.050/17.5	.071/17.5	.095/ 8.7	.118/ 8.5	.137/ 8.3	.149/ 8.3	.153/ 8.1	.151/ 8.1	.141/ 8.3	.128/ 8.3	.115/ 8.5	.110/ 8.5
	11	.053/20.3	.059/20.3	.074/19.6	.094/12.1	.114/11.6	.131/10.1	.143/10.1	.150/ 9.5	.150/ 9.5	.146/ 9.8	.138/ 9.8	.131/ 9.8	.124/ 9.8
	13	.059/20.3	.063/20.3	.075/20.3	.091/20.3	.107/14.3	.122/12.6	.133/12.1	.141/11.6	.143/11.2	.142/11.2	.138/11.2	.134/11.2	.133/11.2
	15	.062/20.3	.065/20.3	.074/20.3	.087/20.3	.100/15.7	.113/15.0	.123/14.3	.130/13.4	.134/12.8	.134/12.6	.133/12.6	.131/12.6	.130/12.6
	17	.063/21.7	.065/21.7	.072/20.9	.082/20.3	.093/20.3	.104/17.5	.113/15.3	.120/15.0	.124/14.6	.126/14.3	.125/14.3	.125/14.3	.124/14.3
	19	.062/22.4	.064/22.4	.069/22.4	.078/21.7	.087/20.3	.096/18.0	.104/17.5	.110/17.0	.114/16.5	.117/16.5	.117/16.1	.117/16.1	.117/16.1
20	7	.021/13.4	.034/13.4	.059/13.4	.087/ 6.5	.111/ 6.5	.130/ 6.5	.142/ 6.7	.145/ 6.7	.140/ 6.7	.127/ 7.0	.108/ 7.1	.090/ 7.3	.081/ 7.3
	9	.032/19.0	.042/19.0	.064/19.0	.091/ 8.7	.117/ 7.9	.137/ 8.5	.156/ 7.7	.164/ 7.7	.165/ 7.7	.159/ 7.7	.148/ 7.9	.137/ 7.9	.132/ 7.9
	11	.041/23.3	.048/23.3	.066/23.3	.088/19.0	.112/10.1	.133/ 9.8	.150/ 9.5	.160/ 9.2	.165/ 9.2	.164/ 9.2	.156/ 9.0	.153/ 8.5	.151/ 8.5
	13	.048/23.3	.053/23.3	.066/23.3	.084/23.3	.104/13.4	.123/13.4	.138/11.6	.149/11.2	.155/11.2	.157/11.2	.156/11.2	.153/11.2	.152/11.2
	15	.051/26.2	.055/26.2	.065/26.2	.080/23.3	.097/15.3	.113/14.6	.126/14.0	.137/13.4	.144/12.8	.147/12.6	.147/12.6	.146/12.6	.146/12.6
	17	.053/26.2	.056/26.2	.064/26.2	.076/26.2	.090/19.0	.103/15.7	.116/15.3	.125/15.0	.132/14.6	.136/14.3	.137/14.3	.137/14.3	.137/14.3
	19	.053/27.3	.055/27.3	.062/27.3	.072/26.2	.083/23.3	.095/19.0	.106/17.0	.115/16.5	.121/16.5	.125/16.5	.127/16.1	.128/16.1	.124/16.1
25	7	.018/16.5	.031/16.5	.057/16.5	.085/16.5	.111/ 6.7	.131/ 6.7	.144/ 7.0	.149/ 7.0	.145/ 7.0	.132/ 7.1	.114/ 7.3	.096/ 7.7	.087/ 7.7
	9	.025/16.5	.036/16.5	.060/16.5	.089/16.5	.119/16.5	.145/ 7.7	.166/ 7.7	.178/ 7.7	.183/ 7.9	.180/ 8.1	.172/ 8.3	.163/ 8.3	.159/ 8.3
	11	.032/16.5	.040/16.5	.060/16.5	.089/16.5	.113/16.5	.138/ 8.3	.160/ 8.3	.176/ 8.3	.185/ 8.3	.189/ 8.5	.188/ 8.5	.185/ 8.5	.183/ 8.5
	13	.038/33.1	.044/33.1	.059/33.1	.080/16.5	.104/16.5	.126/16.5	.147/11.6	.162/11.2	.173/ 8.7	.179/ 8.7	.181/ 8.7	.181/ 8.7	.181/ 8.7
	15	.042/33.1	.046/33.1	.058/33.1	.075/16.5	.095/16.5	.115/16.5	.137/13.4	.147/12.8	.158/12.6	.165/12.6	.169/12.6	.170/12.6	.170/12.6
	17	.044/33.1	.047/33.1	.057/33.1	.071/33.1	.088/16.5	.105/16.5	.121/16.5	.133/15.3	.144/14.3	.151/14.3	.154/14.3	.156/14.3	.157/14.3
	19	.045/33.1	.048/33.1	.055/33.1	.067/33.1	.081/16.5	.096/16.5	.109/16.5	.121/16.5	.130/16.5	.137/16.5	.141/16.1	.143/16.1	.144/16.1
	21	.045/33.1	.044/33.1	.054/33.1	.064/33.1	.076/24.2	.088/20.3	.100/19.6	.111/18.0	.119/17.5	.125/17.0	.129/16.5	.131/16.5	.132/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
(ACC. X 100)
HELICOPTER DECK BULLSEYE - 125.3 FT FORWARD OF AP AND 39.7 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES													180
		0	15	30	45	60	75	90	105	120	135	150	165		
5	7	.130/ 8.7	.168/ 7.5	.245/ 6.3	.323/ 6.3	.398/ 6.3	.432/ 6.3	.452/ 6.3	.465/ 6.3	.414/ 6.3	.363/ 6.3	.299/ 5.7	.241/ 5.7	.215/ 5.7	
	9	.143/11.2	.169/10.8	.226/ 8.7	.290/ 7.9	.345/ 7.3	.366/ 7.3	.406/ 7.3	.406/ 7.5	.387/ 7.5	.351/ 7.7	.307/ 7.9	.268/ 8.1	.252/ 8.1	
	11	.146/12.1	.162/12.1	.202/11.6	.249/10.8	.293/ 9.0	.326/ 8.5	.345/ 8.3	.348/ 8.3	.338/ 8.5	.315/ 8.5	.288/ 8.7	.264/ 9.0	.254/ 9.0	
	13	.140/13.1	.151/13.1	.179/12.9	.214/12.1	.247/11.6	.273/10.8	.299/ 9.5	.294/ 9.2	.289/ 9.2	.278/ 9.2	.258/ 9.5	.243/ 9.8	.237/ 9.8	
	15	.129/14.3	.137/15.3	.157/13.7	.183/13.1	.209/12.5	.230/12.1	.249/11.5	.249/11.2	.247/10.8	.238/10.8	.227/11.2	.217/11.2	.213/11.2	
	17	.117/15.7	.123/15.0	.138/14.6	.154/14.3	.178/13.9	.195/12.8	.207/12.6	.212/12.1	.211/11.6	.206/11.6	.198/11.6	.192/11.6	.189/11.6	
	19	.105/15.7	.110/15.7	.122/15.7	.137/15.3	.154/14.6	.167/14.0	.177/13.4	.182/12.8	.182/12.6	.179/12.6	.173/12.6	.169/12.6	.167/12.6	
21	.095/17.5	.098/17.0	.108/17.0	.120/16.1	.133/15.7	.145/15.0	.153/14.3	.157/14.0	.158/13.7	.156/13.4	.152/13.4	.149/13.4	.147/13.4		
10	7	.081/ 9.5	.124/ 7.3	.206/ 6.3	.290/ 6.3	.362/ 6.3	.414/ 6.3	.443/ 6.3	.446/ 6.3	.425/ 6.3	.382/ 6.3	.326/ 6.3	.272/ 5.7	.247/ 5.7	
	9	.094/12.8	.123/12.8	.187/ 7.7	.259/ 7.3	.324/ 7.3	.375/ 7.1	.407/ 7.3	.418/ 7.3	.409/ 7.5	.383/ 7.7	.346/ 7.9	.311/ 8.1	.295/ 8.1	
	11	.099/15.0	.119/14.6	.165/14.3	.221/ 9.5	.274/ 8.5	.317/ 8.3	.347/ 8.3	.362/ 8.5	.362/ 8.5	.349/ 8.7	.328/ 9.0	.308/ 9.0	.299/ 9.0	
	13	.098/15.7	.112/15.3	.145/15.3	.187/12.8	.230/11.6	.266/ 9.5	.292/ 9.5	.308/ 9.2	.312/ 9.2	.307/ 9.5	.295/ 9.8	.284/ 9.8	.279/ 9.8	
	15	.093/16.5	.103/16.5	.128/16.1	.160/15.0	.194/13.4	.224/12.1	.246/11.6	.261/10.8	.267/10.1	.266/10.1	.260/10.5	.254/10.5	.251/10.5	
	17	.087/17.5	.094/17.5	.113/17.0	.138/16.1	.165/15.0	.190/13.4	.209/12.6	.222/12.1	.229/12.1	.230/11.6	.227/11.6	.223/11.6	.221/11.6	
	19	.079/18.5	.085/18.5	.100/18.0	.120/17.0	.142/15.7	.162/14.6	.179/13.7	.191/13.1	.197/12.8	.199/12.6	.194/12.6	.196/12.6	.195/12.6	
21	.072/19.6	.077/19.6	.089/18.5	.105/18.0	.124/17.0	.141/15.7	.155/14.6	.165/14.3	.171/13.7	.174/13.4	.174/13.4	.172/13.7	.171/13.7		
15	7	.054/10.8	.101/ 7.7	.195/ 6.3	.275/ 6.3	.354/ 6.3	.416/ 6.3	.453/ 6.3	.464/ 6.3	.449/ 6.3	.410/ 6.3	.354/ 6.3	.297/ 6.7	.271/ 6.7	
	9	.064/17.5	.097/11.6	.167/ 7.9	.247/ 6.7	.323/ 6.7	.386/ 6.7	.430/ 6.7	.452/ 6.8	.452/ 7.0	.431/ 7.1	.397/ 7.3	.363/ 7.5	.347/ 7.7	
	11	.069/17.5	.091/17.5	.144/11.6	.208/ 8.3	.272/ 7.9	.327/ 7.3	.370/ 7.5	.396/ 8.1	.405/ 8.3	.398/ 8.5	.381/ 8.7	.363/ 9.0	.355/ 9.0	
	13	.070/20.3	.085/20.3	.124/20.3	.175/11.6	.226/ 9.0	.273/ 9.0	.311/ 9.0	.336/ 9.2	.349/ 9.2	.351/ 9.5	.344/ 9.8	.334/ 9.8	.330/ 9.8	
	15	.068/20.3	.079/20.3	.108/20.3	.148/14.3	.190/12.1	.229/11.6	.261/10.1	.285/10.1	.299/10.1	.303/10.1	.302/10.5	.297/10.5	.295/10.5	
	17	.064/20.3	.072/20.3	.095/20.3	.127/17.5	.161/14.3	.193/12.8	.221/12.1	.242/11.6	.255/11.2	.262/11.2	.263/11.2	.261/11.2	.260/11.2	
	19	.060/20.9	.066/20.9	.084/20.3	.110/20.3	.138/15.3	.165/14.6	.189/13.1	.207/12.8	.219/12.6	.226/12.6	.228/12.6	.228/12.6	.227/12.6	
21	.055/22.4	.061/21.7	.075/21.7	.096/20.3	.120/17.5	.142/15.3	.163/14.6	.179/14.3	.190/13.7	.197/13.4	.199/13.4	.200/13.7	.199/13.7		
20	7	.039/13.4	.088/ 8.5	.176/ 6.3	.271/ 6.3	.359/ 6.3	.429/ 6.5	.475/ 6.5	.493/ 6.5	.483/ 6.7	.447/ 6.7	.393/ 6.8	.335/ 7.1	.308/ 7.3	
	9	.045/13.4	.082/13.4	.157/ 6.5	.247/ 6.5	.336/ 6.7	.414/ 7.0	.474/ 7.1	.491/ 7.1	.482/ 7.3	.454/ 7.5	.488/ 7.7	.459/ 7.7	.446/ 7.7	
	11	.049/19.0	.074/19.0	.133/ 9.2	.206/ 7.0	.283/ 7.1	.354/ 7.1	.413/ 7.3	.455/ 7.7	.478/ 7.7	.484/ 7.9	.477/ 7.9	.466/ 8.1	.460/ 8.1	
	13	.050/23.3	.068/23.3	.113/13.4	.171/ 9.2	.234/ 7.1	.295/ 7.5	.347/ 7.7	.386/ 7.7	.413/ 7.9	.425/ 8.1	.427/ 8.1	.424/ 8.1	.422/ 8.1	
	15	.049/23.3	.062/23.3	.097/23.3	.144/13.4	.195/ 9.8	.245/ 7.7	.290/ 7.7	.325/ 7.9	.351/ 8.1	.365/ 8.1	.371/ 8.3	.372/ 8.3	.371/10.1	
	17	.048/26.2	.057/26.2	.084/23.3	.122/14.6	.164/13.4	.206/11.6	.244/11.2	.275/11.2	.298/11.2	.313/11.2	.320/11.2	.322/11.2	.322/11.2	
	19	.045/26.2	.053/26.2	.074/26.2	.105/19.0	.140/14.6	.175/14.0	.207/13.4	.234/12.1	.255/11.6	.268/11.6	.276/11.6	.279/11.6	.279/11.6	
21	.043/27.3	.049/27.3	.066/26.2	.091/23.3	.121/15.7	.150/15.0	.178/14.3	.201/13.7	.219/13.4	.232/12.6	.239/12.6	.242/12.6	.243/12.6		
25	7	.034/16.5	.083/16.5	.172/ 6.3	.272/ 6.5	.367/ 6.5	.444/ 6.5	.497/ 6.7	.521/ 6.7	.515/ 7.0	.481/ 7.0	.426/ 7.1	.367/ 7.5	.340/ 7.7	
	9	.035/16.5	.074/16.5	.154/ 6.5	.253/ 7.0	.343/ 7.0	.421/ 7.1	.482/ 7.3	.502/ 7.3	.497/ 7.5	.461/ 7.5	.486/ 7.7	.459/ 7.7	.446/ 7.7	
	11	.036/16.5	.064/16.5	.128/16.5	.212/ 7.0	.300/ 7.1	.392/ 7.7	.470/ 7.7	.532/ 7.9	.575/ 8.1	.599/ 8.3	.608/ 8.3	.603/ 8.3	.603/ 8.3	
	13	.037/16.5	.057/16.5	.107/16.5	.175/ 7.1	.250/ 7.1	.326/ 7.7	.395/ 8.1	.455/ 8.1	.499/ 8.3	.528/ 8.3	.544/ 8.5	.550/ 8.5	.552/ 8.5	
	15	.037/33.1	.052/16.5	.091/16.5	.145/16.5	.207/ 7.7	.271/ 7.7	.330/ 8.1	.382/ 8.1	.423/ 8.3	.452/ 8.3	.469/ 8.5	.478/ 8.5	.480/ 8.5	
	17	.036/33.1	.047/33.1	.078/16.5	.122/16.5	.173/ 7.7	.226/ 7.7	.277/ 8.1	.321/ 8.1	.351/ 8.3	.384/ 8.5	.401/ 8.5	.410/ 8.5	.412/ 8.5	
	19	.034/33.1	.043/33.1	.068/33.1	.104/16.5	.147/16.5	.191/ 7.9	.234/ 8.1	.272/ 8.3	.304/ 8.3	.327/ 8.5	.343/ 8.5	.351/ 8.5	.354/ 8.5	
21	.033/33.1	.040/33.1	.060/33.1	.090/16.5	.126/16.5	.163/ 7.9	.200/ 8.1	.233/ 8.3	.260/ 8.3	.281/ 8.5	.295/ 8.5	.303/ 8.5	.305/ 8.7		

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

69811

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

DE 1078

RMS TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

LUNGCRESTED
RMS POLL IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.00/9.2	.245/9.2	.354/9.5	.425/9.2	.476/9.2	.498/9.0	.294/9.0	.294/8.5	.272/7.9	.195/7.7	.123/8.1	.062/8.5	.000/9.0
9	11	.00/9.2	.442/9.2	.395/9.5	.537/9.8	.633/9.5	.558/9.2	.458/9.2	.458/9.2	.457/9.2	.377/9.0	.274/9.2	.161/9.2	.000/9.0
13	13	.00/9.2	.193/9.2	.343/9.5	.487/9.8	.539/9.5	.558/9.2	.458/9.2	.474/9.2	.493/9.2	.432/9.2	.332/9.2	.203/9.2	.000/9.0
15	15	.00/9.2	.125/9.2	.280/9.5	.402/9.8	.431/9.5	.461/9.5	.397/9.5	.418/9.5	.443/9.5	.349/9.5	.271/9.2	.144/9.2	.000/9.0
17	17	.00/9.2	.102/9.2	.244/9.5	.326/9.8	.349/9.5	.381/9.5	.330/9.5	.351/9.5	.374/9.5	.242/9.5	.171/9.2	.044/9.2	.000/9.0
21	21	.00/9.2	.084/9.2	.152/9.5	.214/9.8	.233/9.5	.273/9.5	.227/9.5	.243/9.5	.312/9.5	.287/9.5	.224/9.2	.142/9.2	.000/9.0
10	7	.00/13.4	.074/12.4	.203/11.5	.263/9.5	.283/9.5	.441/8.7	.260/8.7	.224/8.3	.184/7.1	.124/7.3	.073/7.5	.035/7.5	.000/9.0
9	9	.00/13.4	.078/12.8	.198/11.5	.252/9.5	.263/9.8	.500/9.2	.389/9.2	.347/9.5	.314/9.5	.248/9.5	.175/10.1	.100/10.1	.000/9.0
13	13	.00/13.4	.065/12.8	.151/11.5	.207/9.5	.235/9.8	.426/9.5	.341/9.5	.344/10.1	.352/10.5	.316/10.5	.248/10.1	.150/10.1	.000/9.0
15	15	.00/13.4	.056/12.8	.127/11.5	.167/9.5	.204/9.8	.366/9.5	.284/9.5	.294/10.1	.308/10.5	.279/10.5	.225/10.1	.143/10.1	.000/9.0
17	17	.00/13.4	.043/12.8	.106/11.5	.146/9.5	.184/9.8	.324/9.5	.238/9.5	.244/10.1	.262/10.5	.240/10.5	.195/10.1	.124/10.1	.000/9.0
21	21	.00/13.4	.035/12.8	.084/11.5	.114/9.5	.152/10.1	.233/9.5	.199/9.8	.209/10.1	.221/10.5	.204/10.5	.166/10.1	.100/10.1	.000/9.0
15	7	.00/20.3	.039/19.5	.083/17.5	.120/14.3	.157/10.1	.515/9.0	.227/9.5	.175/7.5	.137/7.5	.085/7.5	.049/7.7	.023/7.7	.000/9.0
9	9	.00/20.3	.047/19.5	.109/17.5	.157/14.3	.194/10.1	.549/9.5	.254/9.2	.203/9.8	.226/9.5	.166/9.5	.127/9.2	.060/9.2	.000/9.0
13	13	.00/20.3	.051/19.5	.114/17.5	.161/14.3	.203/10.1	.473/9.8	.324/9.5	.291/10.1	.276/10.5	.220/10.5	.163/11.2	.077/11.2	.000/9.0
15	15	.00/20.3	.048/19.5	.105/17.5	.148/14.3	.184/10.1	.385/9.8	.290/9.8	.260/10.1	.272/10.5	.231/11.2	.180/11.2	.124/11.2	.000/9.0
17	17	.00/20.3	.043/19.5	.092/17.5	.134/14.3	.167/10.1	.312/9.8	.246/9.8	.245/10.5	.246/10.5	.215/11.5	.172/11.2	.124/11.2	.000/9.0
21	21	.00/20.3	.033/19.5	.069/17.5	.104/14.3	.134/10.1	.234/9.8	.206/9.8	.216/10.5	.213/10.5	.191/11.5	.155/11.2	.074/11.2	.000/9.0
20	7	.00/7.1	.047/7.0	.074/25.1	.135/19.0	.174/13.4	.631/9.2	.221/8.5	.149/7.5	.109/7.5	.067/7.5	.027/7.5	.017/7.5	.000/9.0
9	9	.00/7.1	.047/27.3	.094/23.3	.178/19.0	.232/13.4	.611/9.5	.312/9.2	.226/9.5	.180/9.5	.131/9.2	.084/9.2	.043/9.2	.000/9.0
13	13	.00/27.3	.046/26.2	.093/23.3	.178/19.0	.232/13.4	.500/9.8	.316/9.5	.264/10.5	.227/10.5	.182/11.2	.130/11.2	.074/11.2	.000/9.0
15	15	.00/27.3	.042/26.2	.083/23.3	.150/19.0	.217/13.4	.494/9.8	.280/9.8	.254/10.5	.203/11.5	.156/12.5	.101/12.5	.044/12.5	.000/9.0
17	17	.00/27.3	.037/26.2	.073/23.3	.134/19.0	.204/13.4	.344/10.1	.237/9.8	.224/10.5	.214/11.5	.197/11.5	.156/12.5	.101/12.5	.000/9.0
21	21	.00/27.3	.032/26.2	.064/23.3	.114/19.0	.184/13.4	.263/10.1	.193/10.1	.197/11.2	.193/11.5	.174/12.5	.145/12.5	.094/12.5	.000/9.0
25	7	.00/7.1	.044/7.5	.064/27.3	.144/19.0	.174/13.4	.217/10.1	.163/10.1	.169/11.5	.168/11.5	.157/12.5	.124/12.5	.074/12.5	.000/9.0
9	9	.00/7.1	.044/27.3	.094/23.3	.164/19.0	.232/13.4	.181/10.1	.153/10.1	.145/11.2	.145/11.5	.137/12.5	.113/12.5	.073/12.5	.000/9.0
13	13	.00/7.1	.044/27.3	.135/23.0	.175/24.2	.232/15.5	.750/9.5	.215/8.3	.130/7.5	.071/7.1	.053/7.3	.029/7.5	.013/7.5	.000/9.0
15	15	.00/7.1	.044/27.3	.110/29.9	.155/24.2	.217/15.5	.538/10.1	.300/9.2	.199/10.1	.151/9.5	.103/9.0	.065/9.2	.034/9.2	.000/9.0
17	17	.00/7.1	.044/27.3	.094/29.9	.135/24.2	.204/15.5	.423/10.1	.270/9.8	.240/10.5	.196/11.5	.147/11.5	.107/11.5	.053/11.5	.000/9.0
21	21	.00/7.1	.044/27.3	.071/29.9	.116/24.2	.172/15.5	.345/10.1	.225/10.1	.215/11.2	.173/12.5	.139/12.5	.104/12.5	.059/12.5	.000/9.0
25	7	.00/7.1	.044/27.3	.062/29.9	.109/24.2	.155/15.5	.272/10.1	.184/10.1	.184/11.2	.160/13.1	.144/12.5	.120/12.5	.074/12.5	.000/9.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

LONGCRESTED
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.34/10.5	.036/10.5	.042/10.1	.055/9.2	.075/7.9	.091/6.3	.023/5.2	.083/6.3	.096/6.3	.078/6.8	.061/6.7	.051/7.0	.049/7.0
	9	.62/11.6	.064/10.2	.069/10.8	.076/10.1	.082/8.7	.077/7.9	.016/5.2	.076/6.5	.103/7.1	.101/7.5	.093/7.9	.086/7.9	.084/7.9
	11	.76/12.6	.067/11.2	.073/12.1	.079/11.2	.087/10.8	.082/9.9	.012/5.2	.063/7.3	.093/7.9	.100/8.5	.100/8.7	.098/9.0	.097/9.0
	13	.79/13.4	.079/13.4	.078/13.1	.075/12.1	.067/11.2	.050/8.7	.009/5.2	.052/8.3	.080/9.0	.091/9.5	.095/10.1	.096/10.1	.096/10.1
	15	.75/14.3	.075/14.3	.073/14.0	.068/12.8	.058/12.1	.041/10.8	.007/5.2	.043/9.8	.068/10.5	.081/10.5	.087/11.2	.089/11.2	.090/11.2
	17	.70/15.7	.069/15.7	.066/14.3	.060/14.0	.050/13.4	.034/12.1	.005/5.2	.036/11.2	.058/11.6	.071/11.6	.077/11.6	.081/12.6	.082/12.6
10	7	.29/14.0	.030/13.7	.036/12.6	.047/11.2	.064/9.2	.083/6.8	.023/5.2	.074/6.3	.089/6.5	.076/6.8	.062/6.7	.053/7.0	.050/7.0
	9	.55/14.6	.057/14.3	.061/13.4	.068/12.1	.073/10.1	.070/7.7	.017/5.2	.071/6.7	.100/7.1	.102/7.7	.097/7.9	.091/7.9	.089/7.9
	11	.69/15.0	.070/15.0	.071/14.0	.072/12.8	.069/11.2	.057/8.3	.013/5.2	.060/7.5	.092/8.1	.102/8.3	.104/8.7	.103/8.7	.103/9.0
	13	.72/16.1	.072/15.7	.071/15.0	.068/13.4	.061/12.1	.049/9.2	.010/5.7	.050/8.5	.080/9.0	.093/9.2	.099/9.2	.101/9.8	.101/9.8
	15	.69/17.0	.069/16.5	.067/15.3	.062/14.3	.053/13.1	.038/11.2	.008/5.7	.042/10.1	.068/10.5	.082/10.5	.090/11.2	.093/11.2	.094/11.2
	17	.64/17.0	.063/17.0	.061/16.1	.055/15.3	.046/14.4	.031/12.1	.006/5.7	.035/11.2	.058/11.6	.072/11.6	.080/12.6	.084/12.6	.085/12.6
15	7	.25/20.3	.027/19.6	.032/17.5	.042/14.3	.057/10.8	.074/7.5	.023/5.2	.067/6.5	.079/6.7	.059/6.8	.056/7.1	.048/7.3	.046/7.3
	9	.49/20.3	.051/19.6	.055/17.5	.061/14.3	.066/11.6	.053/8.3	.018/5.7	.067/7.0	.094/7.1	.099/7.7	.095/7.9	.090/7.9	.089/7.9
	11	.62/20.3	.063/19.6	.064/17.5	.066/14.3	.063/12.1	.052/9.0	.014/5.7	.058/7.9	.089/8.1	.101/8.5	.104/8.7	.104/8.7	.104/9.0
	13	.65/20.3	.065/19.6	.065/17.5	.063/15.0	.057/13.1	.042/10.8	.011/10.1	.049/9.0	.078/9.0	.093/9.2	.100/9.2	.102/9.8	.103/9.8
	15	.63/20.3	.063/19.6	.061/17.5	.057/15.7	.049/13.7	.035/11.6	.010/14.0	.041/10.8	.067/10.5	.082/10.5	.090/10.5	.094/10.8	.095/10.8
	17	.59/20.3	.058/19.6	.056/17.5	.051/16.5	.043/14.6	.031/12.8	.008/15.7	.035/11.2	.058/11.6	.072/11.6	.081/12.6	.085/12.6	.086/12.6
20	7	.24/34.9	.025/31.4	.029/25.1	.037/19.0	.053/13.4	.067/8.1	.024/5.2	.061/6.5	.070/7.0	.059/7.3	.048/7.5	.041/7.5	.039/7.5
	9	.46/27.3	.047/26.2	.049/23.3	.055/19.0	.061/13.4	.058/8.7	.019/5.7	.063/7.0	.088/7.7	.092/7.9	.088/8.1	.084/8.3	.083/8.3
	11	.57/27.3	.057/26.2	.058/23.3	.059/19.0	.059/13.4	.048/9.5	.016/9.8	.055/8.1	.085/8.3	.097/8.5	.100/8.7	.101/8.7	.101/9.0
	13	.60/27.3	.060/26.2	.058/23.3	.057/19.0	.053/13.4	.040/11.2	.013/11.2	.047/9.2	.075/9.2	.090/9.5	.097/10.1	.100/9.8	.101/9.8
	15	.58/27.3	.057/26.2	.055/23.3	.052/19.0	.046/13.4	.033/12.1	.012/14.0	.040/10.8	.065/10.5	.080/10.5	.089/10.5	.093/10.8	.094/10.8
	17	.54/27.3	.053/26.2	.050/23.3	.046/19.0	.040/13.4	.027/13.4	.010/15.7	.034/11.2	.056/11.6	.071/11.6	.080/11.6	.084/12.1	.086/12.1
25	7	.25/44.4	.027/41.9	.029/35.1	.034/27.3	.048/15.5	.062/8.7	.025/5.7	.056/6.7	.061/7.1	.050/7.5	.040/7.7	.034/7.7	.032/7.7
	9	.44/52.4	.045/48.3	.046/43.1	.049/34.2	.056/16.5	.055/9.2	.021/6.3	.059/7.3	.081/7.7	.084/8.1	.080/8.3	.076/8.5	.075/8.5
	11	.53/37.0	.054/34.9	.054/29.9	.053/24.2	.054/16.5	.047/10.5	.018/10.1	.053/8.1	.080/8.3	.091/8.7	.095/9.0	.098/9.0	.099/9.0
	13	.55/33.1	.053/33.1	.054/29.9	.051/24.2	.049/16.5	.036/11.6	.015/12.4	.046/9.8	.072/9.2	.086/9.5	.093/10.1	.096/9.8	.097/9.8
	15	.53/33.1	.053/33.1	.051/29.9	.047/24.2	.043/16.5	.032/12.6	.014/14.0	.036/11.2	.063/10.5	.086/10.5	.093/10.5	.097/10.8	.098/10.8
	17	.50/33.1	.049/33.1	.046/29.9	.042/24.2	.037/16.5	.027/13.1	.013/15.7	.034/12.1	.055/11.6	.077/11.6	.084/12.1	.088/12.1	.089/12.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078														
LONGCRESTED														
RMS LAT DISP IN FEET/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS														
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM BL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/9.2	.010/9.0	.021/10.5	.038/9.8	.066/9.2	.111/8.3	.145/7.5	.144/7.5	.050/7.7	.023/7.9	.012/8.1	.005/8.1	.000/8.0
9	.000/12.6	.022/12.6	.047/12.1	.080/11.6	.120/10.8	.162/9.8	.207/9.1	.250/8.3	.293/7.5	.336/6.7	.379/6.0	.422/5.3	.465/4.6	.508/4.0
11	.000/14.3	.035/14.3	.073/14.0	.115/12.8	.160/12.0	.207/11.2	.250/10.5	.293/9.8	.336/9.1	.379/8.4	.422/7.7	.465/7.0	.508/6.3	.551/5.6
13	.000/15.7	.046/15.7	.093/15.3	.141/15.0	.186/14.3	.234/13.6	.281/13.0	.328/12.3	.375/11.6	.422/11.0	.465/10.3	.508/9.6	.551/8.9	.594/8.2
15	.000/17.5	.053/17.5	.107/17.0	.158/17.0	.203/16.5	.247/16.0	.291/15.5	.336/15.0	.381/14.5	.426/14.0	.471/13.5	.516/13.0	.561/12.5	.606/12.0
17	.000/19.6	.058/19.6	.115/19.0	.168/19.0	.212/18.5	.254/18.0	.297/17.5	.341/17.0	.385/16.5	.429/16.0	.473/15.5	.517/15.0	.561/14.5	.606/14.0
19	.000/19.6	.061/19.6	.120/19.6	.173/19.0	.217/18.5	.259/18.0	.302/17.5	.346/17.0	.389/16.5	.433/16.0	.477/15.5	.521/15.0	.565/14.5	.609/14.0
21	.000/22.4	.063/22.4	.123/22.4	.177/21.7	.221/21.0	.264/20.5	.307/20.0	.351/19.5	.394/19.0	.438/18.5	.481/18.0	.525/17.5	.569/17.0	.613/16.5
10	7	.000/12.8	.017/12.8	.030/11.6	.047/11.6	.081/10.1	.122/9.2	.145/8.7	.144/8.7	.046/7.7	.021/7.9	.010/8.1	.004/8.1	.000/8.0
9	.000/15.3	.028/15.0	.057/14.3	.093/13.1	.137/11.6	.174/10.5	.208/10.0	.241/9.5	.274/9.0	.307/8.5	.340/8.0	.373/7.5	.406/7.0	.439/6.5
11	.000/16.1	.042/16.1	.085/15.3	.131/14.3	.176/13.4	.208/12.8	.239/12.3	.271/11.8	.303/11.3	.335/10.8	.367/10.3	.399/9.8	.431/9.3	.463/8.8
13	.000/18.0	.053/18.0	.105/17.5	.156/16.5	.201/15.5	.239/14.6	.271/13.8	.303/13.0	.335/12.3	.367/11.6	.399/11.0	.431/10.5	.463/10.0	.495/9.5
15	.000/19.6	.060/19.6	.118/19.0	.172/18.0	.217/17.5	.254/16.5	.297/15.5	.341/15.0	.385/14.5	.429/14.0	.473/13.5	.517/13.0	.561/12.5	.606/12.0
17	.000/20.3	.064/20.3	.125/20.3	.181/19.5	.224/18.5	.264/17.5	.307/16.5	.351/15.5	.394/15.0	.438/14.5	.481/14.0	.525/13.5	.569/13.0	.613/12.5
19	.000/21.7	.067/21.7	.130/21.7	.185/20.9	.227/19.6	.264/18.5	.307/17.5	.351/16.5	.394/15.5	.438/15.0	.481/14.5	.525/14.0	.569/13.5	.613/13.0
21	.000/24.2	.069/24.2	.133/24.2	.188/23.3	.229/22.4	.264/21.0	.307/20.0	.351/19.0	.394/18.0	.438/17.0	.481/16.5	.525/16.0	.569/15.5	.613/15.0
15	7	.000/7.3	.072/7.3	.109/17.5	.091/14.3	.097/11.2	.135/9.2	.145/8.7	.144/8.7	.043/7.7	.019/7.9	.008/8.1	.003/8.1	.000/8.0
9	.000/7.3	.061/19.6	.112/17.5	.121/14.3	.155/12.8	.188/11.2	.208/10.5	.241/9.5	.274/9.0	.307/8.5	.340/8.0	.373/7.5	.406/7.0	.439/6.5
11	.000/7.3	.063/19.6	.127/19.0	.178/17.5	.219/16.5	.254/15.5	.297/14.5	.341/13.5	.385/12.5	.429/11.5	.473/10.5	.517/9.5	.561/8.5	.606/7.5
13	.000/7.3	.068/19.6	.138/20.3	.192/18.5	.234/17.5	.271/16.5	.314/15.5	.357/14.5	.400/13.5	.443/12.5	.487/11.5	.530/10.5	.573/9.5	.617/8.5
15	.000/7.3	.073/20.9	.143/21.7	.198/20.3	.234/18.5	.271/17.5	.314/16.5	.357/15.5	.400/14.5	.443/13.5	.487/12.5	.530/11.5	.573/10.5	.617/9.5
17	.000/7.3	.076/22.4	.147/23.3	.201/22.4	.240/20.9	.271/19.6	.314/18.5	.357/17.5	.400/16.5	.443/15.5	.487/14.5	.530/13.5	.573/12.5	.617/11.5
19	.000/24.2	.078/24.2	.147/23.3	.201/22.4	.240/20.9	.271/19.6	.314/18.5	.357/17.5	.400/16.5	.443/15.5	.487/14.5	.530/13.5	.573/12.5	.617/11.5
21	.000/27.3	.079/26.2	.149/26.2	.204/25.1	.241/23.3	.271/21.7	.314/20.0	.357/18.5	.400/17.5	.443/16.5	.487/15.5	.530/14.5	.573/13.5	.617/12.5
20	7	.000/7.3	.121/52.4	.202/39.3	.195/19.0	.139/13.4	.153/9.5	.145/8.7	.144/8.7	.039/7.7	.017/7.9	.007/8.1	.003/8.1	.000/8.0
9	.000/7.3	.125/26.2	.195/23.3	.209/19.0	.187/14.0	.187/13.4	.205/11.2	.208/11.2	.250/10.5	.274/9.0	.307/8.5	.340/8.0	.373/7.5	.406/7.0
11	.000/7.3	.118/26.2	.188/23.3	.222/19.0	.244/17.0	.244/16.5	.261/15.5	.264/15.0	.307/14.5	.331/13.5	.364/12.5	.397/11.5	.430/10.5	.463/9.5
13	.000/7.3	.111/26.2	.188/23.3	.222/19.0	.244/17.0	.244/16.5	.261/15.5	.264/15.0	.307/14.5	.331/13.5	.364/12.5	.397/11.5	.430/10.5	.463/9.5
15	.000/7.3	.108/26.2	.186/23.3	.232/21.7	.258/19.0	.258/18.5	.275/17.5	.278/17.0	.321/16.5	.345/15.5	.379/14.5	.413/13.5	.447/12.5	.481/11.5
17	.000/7.3	.103/26.2	.185/23.3	.232/21.7	.258/19.0	.258/18.5	.275/17.5	.278/17.0	.321/16.5	.345/15.5	.379/14.5	.413/13.5	.447/12.5	.481/11.5
19	.000/7.3	.103/26.2	.185/23.3	.232/21.7	.258/19.0	.258/18.5	.275/17.5	.278/17.0	.321/16.5	.345/15.5	.379/14.5	.413/13.5	.447/12.5	.481/11.5
21	.000/7.3	.103/26.2	.185/23.3	.232/21.7	.258/19.0	.258/18.5	.275/17.5	.278/17.0	.321/16.5	.345/15.5	.379/14.5	.413/13.5	.447/12.5	.481/11.5
25	7	.000/7.3	.095/9.5	.179/23.3	.292/24.9	.268/16.5	.174/10.1	.146/7.5	.082/7.5	.036/7.7	.015/7.9	.006/8.1	.002/8.1	.000/8.0
9	.000/7.3	.139/48.3	.228/33.1	.326/24.2	.270/16.5	.255/11.5	.225/10.5	.208/11.2	.187/11.2	.169/10.5	.152/9.5	.135/9.5	.118/9.5	.101/9.5
11	.000/7.3	.155/33.1	.247/29.9	.351/24.2	.284/16.5	.266/13.4	.236/12.3	.225/11.8	.208/11.2	.187/11.2	.169/10.5	.152/9.5	.135/9.5	.118/9.5
13	.000/7.3	.160/33.1	.254/29.9	.368/24.2	.292/16.5	.273/13.4	.243/12.3	.232/11.8	.215/11.2	.194/10.5	.173/9.5	.152/9.5	.135/9.5	.118/9.5
15	.000/7.3	.160/33.1	.250/29.9	.377/24.2	.292/16.5	.273/13.4	.243/12.3	.232/11.8	.215/11.2	.194/10.5	.173/9.5	.152/9.5	.135/9.5	.118/9.5
17	.000/7.3	.155/33.1	.250/29.9	.377/24.2	.292/16.5	.273/13.4	.243/12.3	.232/11.8	.215/11.2	.194/10.5	.173/9.5	.152/9.5	.135/9.5	.118/9.5
19	.000/7.3	.149/33.1	.243/29.9	.377/24.2	.292/16.5	.273/13.4	.243/12.3	.232/11.8	.215/11.2	.194/10.5	.173/9.5	.152/9.5	.135/9.5	.118/9.5
21	.000/7.3	.143/33.1	.237/29.9	.368/24.2	.288/16.5	.269/13.4	.239/12.3	.228/11.8	.211/11.2	.190/10.5	.169/9.5	.148/9.5	.127/9.5	.106/9.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

DE 1078

LONGCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM PL

V	T	SHIP HEADING ANGLE IN DEGREES										165	180
		0	15	30	45	60	75	90	105	120	135	150	
5	7	.000/9.2	.007/9.0	.014/10.5	.025/11.6	.047/12.6	.080/14.2	.140/17.0	.245/21.0	.444/27.1	.688/32.5	.909/37.9	.005/ 5.70 .000/0.000
9	9	.000/12.6	.011/12.1	.025/13.4	.045/14.6	.074/15.6	.111/17.0	.177/20.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.009/ 9.80 .000/0.000
11	13	.000/13.4	.016/13.4	.035/13.4	.059/14.6	.091/15.6	.137/17.0	.203/20.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.015/10.80 .000/0.000
13	13	.000/14.6	.020/14.6	.041/14.6	.067/15.6	.104/17.0	.151/19.5	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.019/12.60 .000/0.000
15	17	.000/16.1	.021/15.7	.043/15.7	.067/17.0	.104/18.5	.151/20.5	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.021/14.30 .000/0.000
17	17	.000/17.5	.021/17.5	.043/17.5	.067/17.5	.104/18.5	.151/20.5	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.021/16.50 .000/0.000
19	19	.000/19.6	.021/19.6	.043/19.6	.067/19.6	.104/19.6	.151/20.5	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.021/16.50 .000/0.000
21	21	.000/19.6	.020/19.6	.040/19.6	.060/19.6	.080/19.6	.100/19.6	.120/19.6	.140/19.6	.160/19.6	.180/19.6	.200/19.6	.021/16.50 .000/0.000
10	7	.000/13.4	.007/12.8	.015/11.5	.026/11.6	.051/12.6	.080/14.2	.139/17.0	.245/21.0	.444/27.1	.688/32.5	.909/37.9	.005/ 5.70 .000/0.000
9	9	.000/13.4	.012/12.1	.026/12.1	.046/12.8	.077/13.4	.114/15.6	.177/19.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.009/ 9.80 .000/0.000
11	13	.000/15.1	.018/15.7	.035/15.3	.059/16.1	.091/17.0	.137/19.5	.203/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.014/11.20 .000/0.000
13	13	.000/17.0	.019/17.0	.040/16.1	.065/16.5	.104/18.5	.151/20.5	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.018/12.60 .000/0.000
15	17	.000/18.5	.021/18.0	.042/17.5	.066/18.5	.104/19.6	.151/21.0	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.020/14.30 .000/0.000
17	17	.000/19.6	.021/19.6	.042/19.6	.066/19.6	.104/19.6	.151/21.0	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.021/16.50 .000/0.000
19	19	.000/20.3	.020/20.3	.041/20.3	.065/20.3	.104/20.3	.151/21.0	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.021/16.50 .000/0.000
21	21	.000/21.7	.020/21.7	.040/21.7	.065/21.7	.104/21.7	.151/21.7	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.020/16.50 .000/0.000
15	7	.000/ 7.3	.010/19.5	.021/17.5	.032/14.3	.053/11.2	.080/12.6	.139/17.0	.245/21.0	.444/27.1	.688/32.5	.909/37.9	.004/ 8.10 .000/0.000
9	9	.000/20.3	.014/19.5	.029/17.5	.048/14.3	.078/12.6	.114/15.6	.177/19.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.009/ 9.80 .000/0.000
11	13	.000/20.3	.017/19.5	.037/17.5	.060/15.7	.092/13.4	.138/19.5	.203/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.014/10.80 .000/0.000
13	13	.000/20.3	.020/19.5	.041/17.5	.065/17.0	.104/18.5	.151/20.5	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.017/12.60 .000/0.000
15	17	.000/20.3	.021/19.5	.042/20.3	.066/18.5	.104/19.6	.151/21.0	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.020/14.30 .000/0.000
17	17	.000/21.7	.021/20.9	.042/20.9	.066/19.0	.104/19.6	.151/21.0	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.020/16.50 .000/0.000
19	19	.000/23.3	.021/22.4	.041/21.7	.062/20.3	.104/21.7	.151/21.7	.217/22.5	.282/24.5	.444/29.5	.688/34.5	.909/39.2	.020/16.50 .000/0.000
21	21	.000/24.2	.020/24.2	.040/23.3	.059/22.4	.077/20.9	.104/19.6	.151/21.0	.217/22.5	.282/24.5	.444/29.5	.909/39.2	.020/16.50 .000/0.000
20	7	.000/0.000	.013/41.9	.028/33.1	.040/19.0	.059/13.4	.101/ 9.2	.139/ 7.0	.094/ 7.0	.044/ 7.1	.019/ 7.7	.009/ 7.9	.004/ 7.90 .000/0.000
9	9	.000/0.000	.014/26.2	.036/23.3	.054/19.0	.080/13.4	.121/10.8	.142/ 8.7	.110/ 8.5	.068/ 8.7	.038/ 9.0	.020/ 9.2	.009/ 9.20 .000/0.000
11	13	.000/0.000	.022/26.2	.042/23.3	.064/19.0	.091/15.0	.124/12.1	.138/10.5	.114/10.1	.079/10.5	.051/10.5	.030/10.1	.014/10.10 .000/0.000
13	13	.000/27.3	.024/26.2	.045/23.3	.068/19.0	.093/16.1	.120/13.7	.130/12.6	.112/12.1	.084/12.1	.058/12.8	.036/12.6	.017/12.60 .000/0.000
15	17	.000/27.3	.024/26.2	.047/23.3	.068/19.0	.091/17.0	.113/15.3	.122/14.0	.108/13.7	.085/13.4	.061/14.6	.039/14.3	.019/14.30 .000/0.000
17	17	.000/27.3	.024/26.2	.046/23.3	.066/19.0	.087/16.5	.107/15.7	.113/15.7	.102/15.7	.083/15.0	.061/14.6	.040/14.6	.020/14.30 .000/0.000
19	19	.000/27.3	.022/26.2	.045/23.3	.064/19.0	.082/16.5	.106/18.0	.104/15.7	.089/17.5	.079/17.0	.050/17.0	.040/16.5	.020/16.50 .000/0.000
21	21	.000/27.3	.022/26.2	.043/23.3	.061/24.2	.077/21.7	.091/19.6	.096/18.0	.089/17.5	.075/17.5	.058/17.0	.039/19.0	.020/19.00 .000/0.000
25	7	.000/0.000	.007/ 9.0	.018/44.9	.045/27.3	.072/15.5	.107/ 9.8	.139/ 7.0	.093/ 7.0	.043/ 7.1	.019/ 7.7	.008/ 7.9	.003/ 7.90 .000/0.000
9	9	.000/0.000	.015/39.3	.031/31.4	.057/24.2	.089/16.5	.125/11.2	.143/ 8.7	.110/ 8.5	.067/ 8.7	.038/ 9.0	.020/ 9.2	.009/ 9.20 .000/0.000
11	13	.000/0.000	.021/33.1	.041/29.9	.077/24.2	.097/16.5	.126/12.8	.138/10.5	.112/10.1	.078/10.5	.050/10.5	.029/10.1	.013/10.10 .000/0.000
13	13	.000/0.000	.025/33.1	.048/29.9	.080/24.2	.098/16.5	.122/14.0	.130/12.6	.111/12.1	.083/12.1	.057/12.8	.035/12.6	.018/12.60 .000/0.000
15	17	.000/0.000	.027/33.1	.051/29.9	.079/24.2	.095/16.5	.115/15.3	.121/14.0	.106/13.7	.083/13.4	.059/14.6	.038/14.3	.018/14.30 .000/0.000
17	17	.000/0.000	.027/33.1	.051/29.9	.076/24.2	.091/16.5	.107/16.5	.112/15.7	.100/15.3	.081/15.0	.060/14.6	.039/14.6	.019/14.30 .000/0.000
19	19	.000/33.1	.027/33.1	.050/29.9	.072/24.2	.085/16.5	.103/15.7	.103/15.7	.084/17.5	.073/17.5	.058/17.0	.039/18.5	.019/18.50 .000/0.000
21	21	.000/33.1	.026/33.1	.048/29.9	.068/24.2	.080/16.5	.092/20.3	.096/18.0	.088/17.5	.073/17.5	.056/17.0	.038/19.0	.019/19.00 .000/0.000

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	000/9.2	014/9.0	030/8.5	055/7.8	107/8.7	1238/7.5	458/6.3	1294/5.5	1287/7.1	067/7.5	040/5.2	020/5.2	000/5.0
	9	000/9.2	020/12.1	045/11.1	083/10.5	157/9.5	254/9.0	392/7.5	293/7.5	166/7.9	094/8.3	052/8.7	024/9.0	000/5.0
	11	000/13.4	025/13.4	055/12.8	097/11.6	156/10.8	254/9.5	328/9.5	265/9.5	173/9.8	109/10.1	064/10.1	030/10.1	000/5.0
	13	000/14.3	027/14.3	058/14.0	094/12.8	154/12.1	213/10.8	276/10.8	203/10.8	166/10.8	112/11.2	069/11.2	033/12.6	000/5.0
	15	000/15.7	027/15.3	057/15.3	094/14.3	137/13.4	187/12.8	233/11.6	203/11.6	152/11.6	104/11.6	065/12.6	032/12.6	000/5.0
	17	000/16.1	026/15.7	056/15.7	093/15.3	123/14.6	164/13.1	199/12.6	177/13.1	137/13.1	100/12.8	065/12.8	032/12.6	000/5.0
10	7	000/17.5	024/17.5	056/17.5	074/17.0	114/17.0	144/16.1	172/14.0	155/13.7	117/14.5	087/14.6	060/14.5	030/14.3	000/5.0
	9	000/17.5	022/17.5	056/17.5	071/17.0	110/16.5	126/16.1	149/15.3	136/15.3	109/15.0	082/14.6	065/14.5	027/14.3	000/5.0
	11	000/13.4	010/12.8	023/11.5	046/11.2	104/9.8	1228/8.1	456/6.3	1313/6.5	140/7.1	070/7.5	041/5.2	020/5.2	000/5.0
	13	000/13.4	016/12.8	037/13.7	072/12.6	138/10.8	224/9.8	392/7.5	309/7.5	181/8.1	103/8.3	057/8.7	025/8.7	000/5.0
	15	000/16.1	021/15.7	046/14.4	084/13.4	145/12.1	230/10.1	328/9.5	278/9.0	187/9.2	119/9.5	070/10.1	032/10.1	000/5.0
	17	000/17.0	023/17.0	050/16.1	086/14.3	139/13.4	206/11.6	276/10.8	243/10.8	177/10.8	121/11.2	075/11.2	035/12.6	000/5.0
15	7	000/17.0	023/17.0	049/16.1	083/15.3	127/14.3	181/12.6	234/11.6	211/12.1	162/11.6	116/11.6	074/12.6	036/12.6	000/5.0
	9	000/18.5	022/18.0	047/17.5	077/16.5	115/15.7	159/13.7	199/12.6	184/13.4	165/13.1	107/12.8	070/12.8	034/12.6	000/5.0
	11	000/19.6	021/19.6	043/19.0	070/17.0	103/15.7	139/15.0	172/14.0	160/13.7	129/14.6	097/14.6	064/14.3	032/14.3	000/5.0
	13	000/19.6	014/19.6	040/19.0	064/18.5	092/17.5	122/16.5	149/15.7	140/15.3	129/14.6	088/14.6	059/14.3	024/14.3	000/5.0
	15	000/20.3	009/19.6	021/17.5	043/14.3	092/11.2	1220/8.5	455/6.3	1330/6.5	151/7.0	073/7.3	040/5.2	019/5.2	000/5.0
	17	000/20.3	013/19.6	032/17.5	062/15.7	123/13.1	1237/9.5	392/7.5	325/7.5	195/8.1	111/8.5	061/8.7	027/8.7	000/5.0
20	7	000/20.3	017/19.6	039/17.5	073/15.7	131/13.1	222/10.8	329/9.2	290/8.7	200/9.2	128/9.5	076/10.1	035/9.8	000/5.0
	9	000/20.3	019/19.6	042/17.5	075/15.7	126/14.3	199/12.1	276/10.8	253/10.8	188/10.8	130/11.2	080/11.2	038/11.2	000/5.0
	11	000/20.3	019/19.6	042/17.5	073/17.5	116/15.3	175/12.8	234/11.6	219/12.1	171/11.6	123/12.8	079/12.8	038/12.6	000/5.0
	13	000/20.3	019/19.6	040/19.6	068/18.5	105/15.7	134/15.0	159/12.6	190/13.4	153/13.1	113/12.8	074/12.8	037/14.0	000/5.0
	15	000/21.7	018/20.9	038/20.3	062/18.5	094/17.0	117/14.0	165/13.7	136/14.6	103/14.6	069/14.3	034/14.3	034/14.3	000/5.0
	17	000/21.7	017/21.7	035/21.7	057/20.3	085/19.5	118/17.0	149/15.7	144/15.3	120/15.0	092/14.6	062/14.6	031/14.3	000/5.0
25	7	000/39.3	007/34.9	017/24.2	036/19.0	083/13.4	214/9.2	453/6.3	346/6.3	162/7.0	077/7.3	040/7.7	019/5.2	000/5.0
	9	000/27.3	011/26.2	027/23.3	054/19.0	110/13.1	203/10.1	391/7.5	338/7.5	204/8.3	120/8.5	065/8.7	029/8.7	000/5.0
	11	000/27.3	015/26.2	036/23.3	063/19.0	117/14.3	215/10.1	329/9.2	301/9.2	211/9.2	137/9.5	081/10.1	037/9.8	000/5.0
	13	000/27.3	018/26.2	037/23.3	065/19.0	114/15.3	192/12.6	276/10.8	261/10.1	178/12.1	137/10.5	086/11.2	041/12.6	000/5.0
	15	000/27.3	018/26.2	038/23.3	065/19.0	106/16.1	158/13.4	233/11.6	225/12.1	177/12.1	130/12.8	084/12.6	041/12.6	000/5.0
	17	000/27.3	017/26.2	036/23.3	061/19.0	097/17.0	147/14.6	199/12.6	193/13.4	151/14.6	119/13.1	078/14.3	036/14.3	000/5.0
25	7	000/27.3	017/26.2	035/23.3	057/19.0	087/14.0	129/15.7	171/14.0	169/13.7	151/14.6	108/14.6	072/14.3	036/14.3	000/5.0
	9	000/27.3	016/26.2	032/23.3	052/19.0	078/14.5	114/16.1	148/15.7	147/15.3	125/15.0	097/14.6	066/14.6	033/14.3	000/5.0
	11	000/32.8	007/9.0	012/39.3	024/26.2	076/16.5	209/9.8	452/6.3	360/6.3	172/6.7	081/7.3	042/7.7	020/7.7	000/5.0
	13	000/32.8	011/33.1	025/29.9	060/24.2	108/16.5	222/10.8	391/7.5	350/7.4	220/8.1	128/8.5	070/8.7	031/8.7	000/5.0
	15	000/33.1	014/33.1	031/29.9	062/24.2	106/16.5	227/10.8	329/9.2	311/8.7	202/9.2	146/9.5	086/10.1	040/9.8	000/5.0
	17	000/33.1	016/33.1	033/29.9	064/24.2	099/16.5	135/13.1	276/10.8	268/10.5	196/10.5	135/10.5	088/12.6	043/12.6	000/5.0
21	7	000/33.1	016/33.1	033/29.9	065/24.2	092/16.5	142/15.0	199/12.6	199/13.4	165/13.1	112/13.1	075/14.3	038/14.3	000/5.0
	9	000/33.1	015/33.1	032/29.9	059/24.2	084/16.5	125/16.5	170/14.0	172/13.7	146/14.6	112/14.6	075/14.3	038/14.3	000/5.0
	11	000/33.1	015/33.1	031/29.9	051/24.2	076/16.5	110/16.5	148/15.7	150/15.3	129/15.0	100/14.6	068/14.6	034/14.3	000/5.0
	13	000/33.1	015/33.1	031/29.9	051/24.2	076/16.5	110/16.5	148/15.7	150/15.3	129/15.0	100/14.6	068/14.6	034/14.3	000/5.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.027/11.2	.029/11.2	.036/10.8	.054/ 9.8	.094/ 8.7	.168/ 7.9	.243/ 6.7	.321/ 6.3	.453/ 6.5	.093/ 6.8	.068/ 7.1	.058/ 7.1	.054/ 7.1
	9	.071/12.6	.075/12.6	.088/12.1	.112/11.2	.151/10.5	.207/ 9.5	.255/ 8.7	.341/ 8.5	.481/ 8.5	.143/ 8.7	.115/ 8.7	.101/ 9.0	.097/ 9.0
	11	.119/14.3	.123/14.3	.135/13.1	.157/12.8	.189/12.1	.227/11.6	.257/11.2	.349/10.8	.511/10.5	.177/10.8	.154/11.2	.141/10.8	.137/10.8
	13	.155/15.7	.159/15.7	.169/15.3	.187/15.0	.210/13.7	.237/13.1	.256/12.6	.349/12.1	.511/12.1	.201/12.8	.183/12.6	.172/12.6	.168/12.6
	15	.182/17.5	.185/17.5	.193/17.0	.214/16.5	.244/16.5	.273/16.1	.256/15.7	.351/15.0	.511/15.0	.217/14.6	.203/14.3	.195/14.3	.192/14.3
	17	.199/19.6	.201/19.6	.208/19.0	.218/19.0	.236/18.0	.254/18.0	.254/18.0	.351/17.5	.511/17.5	.239/17.0	.226/16.5	.209/16.5	.207/16.5
10	7	.024/14.3	.026/12.8	.034/13.1	.052/11.6	.090/10.1	.167/ 8.3	.242/ 6.7	.323/ 6.3	.468/ 6.3	.115/ 6.8	.083/ 7.1	.068/ 7.1	.064/ 7.0
	9	.069/15.3	.073/15.0	.085/14.3	.109/13.1	.147/11.6	.203/12.1	.254/ 8.7	.353/ 8.3	.511/ 8.3	.171/ 8.3	.142/ 8.1	.126/ 8.3	.121/ 8.3
	11	.115/16.1	.119/16.1	.132/15.3	.154/14.3	.184/13.6	.223/12.1	.255/11.2	.355/10.8	.511/10.8	.199/10.5	.177/10.1	.163/10.1	.159/10.1
	13	.151/18.0	.155/18.0	.165/17.5	.183/16.5	.207/14.6	.234/13.7	.255/12.6	.355/12.1	.511/12.1	.215/12.8	.199/12.6	.188/12.6	.185/12.6
	15	.177/19.6	.180/19.6	.189/19.0	.203/18.5	.221/17.5	.240/16.5	.253/15.7	.354/15.0	.511/15.0	.227/14.6	.214/14.3	.203/14.3	.203/14.3
	17	.195/21.7	.197/21.7	.204/20.9	.215/20.3	.229/19.6	.243/18.5	.253/18.0	.353/17.5	.511/17.5	.233/16.5	.224/16.5	.217/16.5	.215/16.5
15	7	.022/20.3	.024/19.6	.032/17.5	.050/14.3	.089/11.6	.163/ 8.7	.241/ 6.7	.340/ 6.3	.483/ 6.3	.131/ 6.8	.096/ 7.1	.078/ 7.3	.073/ 7.3
	9	.065/20.3	.069/19.6	.081/17.5	.106/15.0	.145/12.8	.200/10.8	.254/ 8.7	.363/ 8.3	.511/ 8.3	.172/ 7.1	.155/ 7.9	.149/ 7.9	.149/ 7.9
	11	.110/20.3	.114/19.6	.127/18.0	.150/16.5	.182/14.6	.232/12.8	.255/11.2	.363/10.8	.511/10.8	.206/10.1	.193/ 9.8	.189/ 9.8	.189/ 9.8
	13	.146/20.3	.150/20.3	.161/19.0	.179/17.5	.204/15.7	.232/14.0	.254/14.0	.363/10.8	.511/10.8	.221/12.6	.212/12.6	.204/12.1	.204/12.1
	15	.173/21.7	.176/21.7	.185/20.3	.199/19.0	.218/17.0	.238/17.0	.254/15.7	.363/10.8	.511/10.8	.240/14.6	.230/14.3	.224/14.3	.221/14.3
	17	.191/23.3	.193/22.4	.200/21.7	.211/20.3	.226/19.0	.241/17.5	.253/18.0	.363/10.8	.511/10.8	.251/17.0	.243/16.5	.230/16.5	.224/16.1
20	7	.022/29.9	.023/28.6	.029/23.3	.046/19.0	.086/13.4	.159/ 9.2	.241/ 6.7	.343/ 6.5	.483/ 6.5	.135/ 7.3	.100/ 7.5	.081/ 7.7	.075/ 7.7
	9	.062/27.3	.066/26.2	.077/23.3	.101/19.0	.142/14.6	.197/11.2	.254/ 8.7	.372/ 8.1	.511/ 8.1	.189/ 7.0	.155/ 7.9	.138/ 8.1	.132/ 8.1
	11	.107/27.3	.111/26.2	.122/23.3	.145/19.0	.179/15.3	.219/13.6	.256/11.2	.372/10.1	.511/10.1	.223/ 9.8	.203/ 8.5	.187/ 8.7	.182/ 8.7
	13	.143/27.3	.146/26.2	.156/23.3	.175/19.0	.201/17.0	.230/14.6	.255/12.6	.372/10.1	.511/10.1	.249/ 9.2	.228/11.2	.213/11.2	.208/11.2
	15	.170/27.3	.173/26.2	.181/23.3	.195/20.9	.218/18.5	.237/16.1	.253/15.7	.372/10.1	.511/10.1	.254/11.6	.243/11.2	.236/11.2	.234/11.2
	17	.188/27.3	.190/26.2	.197/23.3	.208/22.4	.223/20.3	.240/18.0	.253/18.0	.372/10.1	.511/10.1	.254/16.5	.249/16.5	.246/16.5	.245/16.1
25	7	.022/69.8	.025/57.1	.031/39.3	.045/25.1	.083/16.5	.157/10.1	.242/ 7.0	.343/ 6.5	.483/ 6.5	.132/ 7.5	.095/ 7.7	.076/ 7.9	.071/ 7.9
	9	.061/41.9	.065/39.3	.076/29.9	.097/24.2	.139/16.5	.197/11.6	.255/ 8.7	.379/ 7.9	.511/ 7.9	.189/ 7.0	.155/ 7.9	.138/ 8.1	.132/ 8.1
	11	.105/33.1	.109/33.1	.120/29.9	.141/24.2	.176/16.5	.218/13.6	.257/11.2	.379/10.1	.511/10.1	.229/ 9.5	.208/ 8.5	.192/ 8.7	.187/ 8.7
	13	.141/33.1	.144/33.1	.154/29.9	.171/24.2	.198/16.5	.230/15.3	.256/12.6	.379/10.1	.511/10.1	.246/11.2	.236/11.2	.228/10.8	.226/10.8
	15	.169/33.1	.171/33.1	.179/29.9	.193/24.2	.213/16.5	.237/16.5	.256/15.7	.379/10.1	.511/10.1	.246/11.2	.236/11.2	.228/10.8	.226/10.8
	17	.187/33.1	.189/33.1	.196/29.9	.206/24.2	.222/21.7	.240/18.5	.254/18.0	.379/10.1	.511/10.1	.246/11.2	.236/11.2	.228/10.8	.226/10.8

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 107A

LONGCRESTED
RMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.017/11.2	.018/11.2	.023/10.5	.036/9.8	.069/8.7	.144/7.3	.245/6.3	.227/5.7	.142/6.3	.090/6.4	.069/6.7	.060/5.2	.058/5.2	
	9	.037/12.1	.039/12.1	.047/11.5	.064/11.2	.095/10.1	.152/8.7	.239/7.5	.212/7.0	.157/7.7	.115/8.1	.097/8.3	.082/8.3	.078/8.3	
	11	.055/13.4	.057/13.4	.065/13.1	.080/12.6	.106/11.2	.143/10.5	.189/9.2	.187/9.2	.152/9.2	.123/9.5	.105/10.1	.095/9.8	.092/9.8	
	13	.066/14.6	.068/14.6	.075/14.3	.087/13.7	.106/13.4	.134/12.1	.165/11.2	.164/11.2	.141/11.5	.121/11.2	.108/11.2	.101/11.2	.099/11.2	
	15	.071/16.1	.073/15.7	.078/15.7	.088/15.3	.103/14.9	.123/13.1	.145/12.6	.145/12.6	.130/13.1	.116/12.8	.107/12.6	.102/12.6	.100/12.6	
	17	.072/17.5	.074/17.5	.078/17.5	.086/17.0	.097/16.5	.113/16.1	.129/15.0	.130/15.0	.119/15.0	.110/14.6	.103/14.3	.099/14.3	.094/14.3	
	19	.071/19.6	.073/19.6	.076/19.6	.082/19.0	.091/17.0	.103/16.1	.116/15.7	.117/15.3	.109/15.0	.103/14.6	.098/14.3	.095/14.3	.094/14.3	
	21	.070/19.6	.071/19.6	.074/19.6	.079/19.0	.086/19.0	.095/18.5	.105/18.0	.106/17.5	.101/17.0	.096/17.0	.092/16.5	.090/16.5	.090/16.5	
	10	7	.011/14.3	.012/12.8	.016/13.1	.028/11.6	.057/9.8	.135/7.9	.243/6.3	.249/5.7	.179/6.3	.121/6.4	.089/6.7	.074/7.0	.070/7.0
9		.028/15.0	.030/15.0	.038/14.0	.053/12.8	.083/11.2	.142/9.2	.218/7.5	.234/6.7	.196/6.7	.157/7.0	.130/7.5	.115/7.7	.110/7.7	
11		.044/16.1	.046/15.7	.054/15.3	.069/15.3	.084/12.5	.136/11.2	.188/9.2	.204/9.0	.183/8.7	.158/9.0	.140/9.0	.129/9.0	.125/9.0	
13		.054/17.0	.056/17.0	.063/16.1	.076/15.3	.095/14.5	.126/12.6	.164/11.2	.177/11.2	.165/10.8	.149/11.2	.137/11.2	.129/11.2	.127/11.2	
15		.060/18.5	.061/18.0	.067/17.5	.078/16.5	.093/15.7	.116/14.6	.144/12.6	.155/12.6	.148/13.1	.138/12.8	.130/12.6	.125/12.6	.123/12.6	
17		.062/19.5	.063/19.6	.068/19.0	.077/18.5	.089/17.5	.107/16.5	.128/14.0	.137/15.0	.134/14.6	.127/14.6	.122/14.3	.118/14.3	.117/14.3	
19		.062/21.7	.063/21.7	.067/20.3	.074/20.3	.084/19.6	.099/17.0	.115/15.7	.123/15.3	.121/15.0	.117/16.5	.113/16.5	.111/16.1	.110/16.1	
21		.061/22.4	.062/21.7	.066/21.7	.071/20.9	.080/19.6	.091/19.0	.104/18.0	.111/17.5	.110/17.0	.108/17.0	.105/16.5	.104/16.5	.103/16.5	
15		7	.007/20.3	.008/19.6	.011/17.5	.021/14.3	.048/11.2	.123/8.5	.242/6.3	.266/6.3	.206/6.5	.148/6.8	.110/7.1	.090/7.1	.084/7.3
	9	.020/20.3	.022/19.6	.029/17.5	.043/15.0	.072/12.6	.130/10.1	.217/7.5	.255/6.7	.234/6.7	.201/7.3	.174/7.5	.157/7.7	.151/7.7	
	11	.034/20.3	.036/19.6	.043/17.5	.057/15.7	.083/13.7	.126/11.6	.188/9.2	.221/8.3	.216/7.1	.200/7.5	.184/7.7	.174/7.9	.170/8.1	
	13	.043/20.3	.045/19.6	.052/19.0	.065/17.5	.086/14.6	.119/12.8	.163/11.2	.190/10.8	.191/10.5	.183/9.5	.174/9.2	.168/9.2	.166/9.2	
	15	.049/21.7	.051/20.9	.058/20.3	.067/16.5	.085/17.0	.110/15.3	.144/12.6	.165/12.6	.164/13.1	.165/12.8	.160/12.6	.156/12.6	.155/12.1	
	17	.051/22.4	.053/22.4	.058/21.7	.067/20.3	.081/18.5	.102/17.0	.128/14.0	.145/13.7	.150/14.6	.144/14.6	.146/14.3	.144/14.3	.143/14.3	
	19	.053/24.2	.054/24.2	.058/23.3	.066/21.7	.078/19.0	.094/17.5	.115/15.7	.129/15.3	.134/15.0	.134/14.6	.133/16.5	.132/16.1	.131/16.1	
	21	.053/25.1	.054/25.1	.058/24.2	.064/22.4	.074/20.9	.087/19.6	.104/18.0	.116/17.5	.121/17.0	.122/17.0	.122/16.5	.121/16.5	.121/16.5	
	20	7	.005/29.9	.005/28.6	.007/23.3	.015/19.0	.039/13.4	.109/9.0	.242/6.3	.278/6.3	.223/6.7	.163/7.3	.121/7.3	.099/7.5	.092/7.5
9		.014/27.3	.015/26.2	.020/23.3	.033/19.0	.062/14.0	.119/10.8	.218/7.5	.272/6.5	.265/7.1	.238/7.5	.212/7.7	.195/7.9	.189/7.9	
11		.025/27.3	.026/26.2	.032/23.3	.047/19.0	.072/15.0	.116/12.1	.188/9.2	.237/7.0	.247/7.1	.239/7.7	.228/8.1	.220/8.3	.217/8.3	
13		.033/27.3	.035/26.2	.041/23.3	.054/19.0	.076/16.1	.112/13.4	.164/11.2	.203/10.1	.217/7.7	.218/7.9	.214/8.1	.211/8.3	.209/8.3	
15		.039/27.3	.041/26.2	.047/23.3	.058/19.0	.076/16.0	.104/14.6	.144/12.6	.175/12.6	.199/12.1	.193/11.2	.193/8.3	.192/8.5	.192/8.7	
17		.042/27.3	.044/26.2	.049/23.3	.059/21.7	.074/19.6	.097/17.5	.128/14.0	.154/13.7	.166/14.6	.172/14.6	.173/14.3	.173/14.0	.173/14.0	
19		.044/27.3	.046/26.2	.050/23.3	.058/22.4	.071/20.3	.090/18.0	.115/15.7	.136/15.3	.148/15.0	.153/14.6	.155/14.5	.156/14.3	.156/14.3	
21		.045/27.3	.046/26.2	.050/23.3	.058/22.4	.068/22.4	.084/19.6	.104/18.0	.122/17.5	.132/17.0	.138/17.0	.140/16.5	.141/16.5	.142/16.5	
25		7	.006/7.3	.005/48.3	.008/37.0	.010/25.1	.031/16.5	.098/9.8	.243/6.3	.286/6.5	.231/7.1	.166/7.3	.122/7.7	.099/7.7	.092/7.9
	9	.007/39.3	.010/37.0	.014/29.9	.025/24.2	.051/16.5	.110/11.2	.218/7.5	.288/6.5	.290/7.1	.266/7.7	.239/8.1	.221/8.3	.215/8.3	
	11	.017/33.1	.019/33.1	.024/29.9	.037/24.2	.062/17.5	.110/12.6	.189/9.2	.252/7.0	.274/7.7	.274/8.1	.257/8.3	.260/8.5	.257/8.5	
	13	.024/33.1	.026/33.1	.032/29.9	.045/24.2	.067/16.5	.105/14.0	.164/11.2	.215/10.1	.241/7.7	.250/8.3	.252/8.5	.251/8.7	.250/8.7	
	15	.030/33.1	.032/33.1	.038/29.9	.049/24.2	.068/16.5	.099/15.3	.145/12.6	.186/12.1	.209/7.7	.221/8.3	.226/8.5	.228/8.7	.228/9.0	
	17	.034/33.1	.036/33.1	.041/29.9	.051/24.2	.067/16.5	.093/18.0	.129/14.0	.162/13.7	.183/13.4	.194/12.8	.201/8.7	.204/8.7	.205/9.0	
	19	.037/33.1	.038/33.1	.043/29.9	.052/24.2	.066/21.7	.086/18.5	.115/15.7	.143/15.3	.161/15.0	.172/14.6	.179/14.5	.182/14.3	.183/14.3	
	21	.038/33.1	.040/33.1	.044/29.9	.051/24.2	.063/23.3	.081/20.3	.105/18.0	.128/17.5	.144/17.0	.154/17.0	.160/16.5	.163/16.5	.164/16.5	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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DE 1078														
LONGCRESTED														
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OE														
(ACC. X 100)														
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM BL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.034/ 8.7	.037/ 8.7	.048/10.5	.078/ 9.5	.163/ 8.3	.403/ 8.3	.822/ 5.7	.765/ 5.7	.456/ 5.7	.289/ 6.3	.231/ 4.8	.209/ 4.8	.202/ 5.2
	9	.060/12.1	.065/12.1	.082/11.5	.118/10.8	.198/ 9.5	.376/ 9.5	.655/ 5.7	.842/ 5.7	.445/ 6.3	.316/ 6.8	.255/ 4.5	.228/ 7.7	.220/ 7.9
	11	.082/13.4	.086/13.1	.102/12.1	.134/11.6	.197/10.8	.326/ 8.7	.510/ 6.3	.810/ 5.7	.333/ 7.1	.294/ 8.3	.248/ 8.7	.225/ 9.0	.219/ 9.0
	13	.090/14.3	.094/14.3	.108/13.1	.136/12.8	.181/11.6	.270/10.5	.403/ 7.0	.640/ 5.7	.322/ 9.0	.227/10.1	.227/10.1	.210/10.1	.205/10.1
	15	.091/15.7	.094/14.6	.105/14.3	.126/13.7	.162/12.6	.229/11.5	.325/ 8.7	.530/ 5.7	.271/10.5	.227/11.2	.203/11.2	.191/11.2	.187/11.2
	17	.087/15.7	.090/15.7	.099/15.7	.115/15.0	.143/13.4	.193/12.8	.267/11.6	.422/11.2	.229/11.6	.198/11.6	.180/12.6	.170/12.6	.167/12.6
	19	.081/17.5	.084/17.5	.091/17.0	.104/15.3	.126/13.0	.165/13.1	.223/12.6	.388/12.1	.196/13.1	.172/12.8	.159/12.8	.151/12.6	.149/12.6
	21	.075/18.0	.077/17.5	.083/17.5	.094/17.0	.112/16.5	.143/14.3	.189/14.0	.344/13.4	.159/13.1	.150/14.6	.140/14.3	.135/14.3	.133/14.3
10	7	.015/14.3	.017/12.8	.025/12.9	.047/11.5	.115/ 9.5	.358/ 7.3	.813/ 5.7	.871/ 5.7	.614/ 6.3	.414/ 6.4	.310/ 6.7	.268/ 6.5	.257/ 7.0
	9	.036/15.0	.040/15.6	.053/13.7	.083/12.6	.150/10.8	.330/ 8.3	.649/ 5.7	.742/ 5.7	.609/ 6.3	.478/ 6.8	.394/ 7.1	.351/ 7.1	.339/ 7.3
	11	.053/16.1	.057/15.7	.070/14.6	.098/13.4	.155/11.6	.284/ 9.5	.506/ 6.3	.588/ 6.3	.516/ 6.3	.435/ 6.8	.379/ 7.5	.349/ 7.7	.340/ 7.9
	13	.062/17.0	.065/16.5	.077/15.3	.101/14.3	.146/12.6	.240/10.8	.400/ 7.0	.466/ 6.3	.425/ 6.5	.373/ 7.0	.336/ 8.1	.316/ 8.3	.309/ 8.3
	15	.064/18.0	.067/18.0	.077/16.5	.097/15.3	.133/13.4	.203/12.1	.323/ 8.5	.376/ 6.3	.350/ 6.5	.316/ 7.7	.291/10.1	.277/10.1	.273/10.1
	17	.063/18.5	.066/18.5	.074/17.5	.090/16.5	.119/14.6	.174/13.4	.265/11.6	.308/ 6.3	.282/ 6.7	.266/11.2	.251/11.2	.241/11.2	.238/12.1
	19	.060/19.6	.062/19.6	.069/19.0	.083/17.0	.106/15.7	.149/14.6	.222/12.6	.257/ 6.3	.246/12.1	.229/12.8	.217/12.6	.210/12.6	.208/12.6
	21	.057/20.3	.059/20.3	.065/19.6	.076/18.5	.095/17.5	.130/15.0	.188/14.0	.218/13.4	.210/13.1	.197/12.8	.188/12.8	.183/14.3	.182/14.0
15	7	.006/20.3	.007/19.6	.013/17.5	.029/14.3	.082/11.2	.297/ 7.9	.808/ 5.7	.959/ 5.7	.747/ 6.3	.537/ 6.8	.404/ 7.1	.337/ 7.1	.317/ 7.1
	9	.020/20.3	.022/19.6	.032/17.5	.055/15.0	.114/12.1	.280/ 9.5	.646/ 5.7	.835/ 6.3	.773/ 6.7	.664/ 6.8	.573/ 7.1	.519/ 7.3	.501/ 7.3
	11	.032/20.3	.035/19.6	.046/17.5	.070/15.7	.121/13.1	.240/11.6	.504/ 6.3	.664/ 6.3	.657/ 6.7	.506/ 7.3	.557/ 7.5	.525/ 7.7	.515/ 7.7
	13	.040/20.3	.042/19.6	.053/18.5	.074/16.5	.117/14.0	.210/11.6	.399/ 7.0	.525/ 6.3	.537/ 6.7	.513/ 7.3	.487/ 7.5	.469/ 7.7	.462/ 7.7
	15	.043/20.3	.046/20.3	.055/19.0	.073/16.5	.108/15.3	.180/12.8	.322/ 8.5	.422/ 6.3	.438/ 6.7	.428/ 7.3	.413/ 7.5	.403/ 7.7	.399/ 7.9
	17	.044/21.7	.046/20.9	.054/20.3	.070/16.5	.098/15.7	.153/14.0	.265/11.6	.345/ 6.3	.362/ 6.7	.358/ 7.3	.350/ 7.5	.344/ 7.7	.342/ 7.9
	19	.043/22.4	.045/22.4	.052/21.7	.065/19.6	.089/17.0	.134/13.3	.221/12.6	.287/ 6.3	.303/ 6.7	.302/ 7.3	.298/ 7.5	.294/ 7.9	.293/ 7.9
	21	.042/24.2	.043/24.2	.049/21.7	.060/20.3	.080/18.5	.117/13.7	.188/14.0	.242/ 6.3	.257/ 6.7	.258/ 7.3	.255/ 7.5	.253/ 7.9	.252/ 7.9
20	7	.014/ 6.7	.010/27.3	.006/23.3	.016/19.0	.056/13.4	.240/ 8.7	.807/ 5.7	.931/ 6.3	.845/ 6.7	.624/ 6.8	.470/ 7.1	.389/ 7.3	.365/ 7.3
	9	.013/27.3	.012/26.2	.017/23.3	.034/19.0	.084/13.4	.235/ 9.8	.646/ 5.7	.820/ 6.3	.921/ 6.7	.836/ 7.3	.747/ 7.5	.689/ 7.7	.670/ 7.9
	11	.019/27.3	.020/26.2	.028/23.3	.047/19.0	.093/14.6	.210/11.2	.504/ 6.3	.736/ 6.3	.793/ 7.1	.779/ 7.5	.746/ 7.7	.721/ 7.9	.712/ 7.9
	13	.024/27.3	.026/26.2	.034/23.3	.052/19.0	.092/15.3	.183/12.1	.399/ 7.0	.583/ 6.5	.649/ 7.1	.661/ 7.5	.654/ 7.9	.646/ 8.1	.642/ 8.1
	15	.028/27.3	.030/26.2	.038/23.3	.054/19.0	.087/17.0	.159/13.4	.322/ 8.5	.467/ 6.5	.529/ 7.1	.549/ 7.5	.553/ 7.9	.552/ 8.1	.551/ 8.3
	17	.030/27.3	.032/26.2	.039/23.3	.053/19.0	.081/17.5	.138/14.6	.265/11.6	.381/ 6.5	.435/ 7.1	.457/ 7.7	.464/ 7.9	.467/ 8.1	.468/ 8.3
	19	.030/27.3	.032/26.2	.038/23.3	.050/20.9	.074/18.5	.120/15.7	.221/12.6	.316/ 6.5	.362/ 7.1	.383/ 7.7	.392/ 7.9	.397/ 8.1	.398/ 8.3
	21	.030/27.3	.032/26.2	.037/23.3	.048/22.4	.067/19.6	.106/17.5	.188/14.0	.266/ 6.5	.306/ 7.1	.325/ 7.7	.334/ 8.1	.339/ 8.1	.340/ 8.3
25	7	.018/ 7.3	.012/ 7.1	.026/ 6.3	.009/24.2	.036/16.5	.193/ 9.5	.808/ 5.7	.971/ 6.3	.910/ 7.1	.672/ 7.3	.502/ 7.5	.412/ 7.7	.385/ 7.7
	9	.012/37.0	.009/34.9	.018/29.9	.020/24.2	.059/16.5	.198/10.8	.648/ 5.7	.800/ 6.3	.849/ 7.1	.836/ 7.5	.820/ 7.9	.830/ 8.1	.808/ 8.1
	11	.012/33.1	.011/33.1	.019/29.9	.030/24.2	.070/16.5	.182/11.6	.506/ 6.3	.806/ 6.5	.920/ 7.1	.940/ 7.7	.926/ 8.1	.907/ 8.3	.899/ 8.3
	13	.015/33.1	.016/33.1	.023/29.9	.036/24.2	.072/16.5	.161/12.8	.400/ 7.0	.670/ 6.5	.756/ 7.1	.805/ 7.9	.821/ 8.1	.824/ 8.3	.824/ 8.3
	15	.018/33.1	.019/33.1	.026/29.9	.039/24.2	.070/16.5	.141/14.0	.323/ 8.7	.513/ 6.5	.617/ 7.1	.669/ 7.9	.696/ 8.1	.707/ 8.3	.710/ 8.5
	17	.020/33.1	.021/33.1	.028/29.9	.040/24.2	.066/16.5	.124/15.0	.266/11.2	.418/ 6.5	.507/ 7.1	.556/ 7.9	.584/ 8.3	.598/ 8.5	.602/ 8.5
	19	.021/33.1	.023/33.1	.028/29.9	.039/24.2	.061/16.5	.109/15.5	.222/12.6	.346/ 6.5	.422/ 7.5	.468/ 7.9	.492/ 8.3	.506/ 8.5	.510/ 8.5
	21	.022/33.1	.023/33.1	.028/29.9	.038/24.2	.057/16.5	.096/16.0	.189/14.0	.291/ 6.5	.355/ 7.5	.394/ 7.9	.418/ 8.3	.431/ 8.5	.435/ 8.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS LAT UISP IN FEET/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM RL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/9.2	.041/10.5	.085/9.5	.140/9.2	.204/8.3	.233/7.5	.145/7.5	.197/6.5	.178/6.7	.116/6.8	.065/7.1	.029/7.1	.000/0.000
	9	.000/11.6	.073/11.6	.144/11.2	.209/10.8	.255/9.0	.246/8.5	.170/8.7	.207/8.3	.211/7.9	.163/7.9	.105/8.1	.051/8.3	.000/0.000
	11	.000/13.4	.094/13.1	.177/12.5	.240/12.1	.268/11.6	.246/11.6	.186/11.6	.207/11.2	.214/8.7	.178/8.7	.128/11.6	.066/12.1	.000/0.000
	13	.000/14.3	.101/14.3	.189/14.0	.248/13.7	.269/13.4	.245/13.1	.200/14.0	.208/13.4	.212/12.1	.181/11.6	.128/11.6	.069/12.6	.000/0.000
	15	.000/15.7	.102/15.7	.189/15.3	.246/15.3	.265/15.0	.245/15.0	.211/15.7	.212/15.3	.210/14.6	.181/13.1	.130/12.8	.068/14.3	.000/0.000
	17	.000/17.5	.099/17.5	.183/17.0	.239/17.0	.258/16.5	.245/16.5	.219/18.0	.215/17.5	.207/17.5	.178/14.6	.129/14.6	.067/16.5	.000/0.000
	19	.000/18.0	.095/17.5	.176/19.0	.230/19.0	.252/19.0	.244/18.5	.225/18.0	.217/17.5	.206/17.5	.175/17.0	.127/16.5	.067/16.5	.000/0.000
10	7	.000/13.7	.066/13.4	.124/12.6	.187/11.2	.244/9.2	.254/7.9	.143/7.5	.178/6.5	.154/6.7	.098/6.8	.054/7.1	.024/7.3	.000/0.000
	9	.000/14.3	.104/14.0	.205/13.1	.276/12.1	.300/10.8	.266/8.7	.169/8.7	.191/8.5	.187/7.9	.142/8.1	.091/8.1	.044/8.3	.000/0.000
	11	.000/15.0	.130/14.6	.240/14.0	.307/13.1	.314/12.1	.264/12.1	.186/11.6	.193/10.8	.182/9.2	.158/9.2	.106/9.2	.057/12.6	.000/0.000
	13	.000/16.1	.134/15.7	.245/15.3	.308/14.3	.310/14.3	.262/14.0	.200/14.0	.196/13.4	.190/13.1	.158/12.8	.111/12.5	.057/12.6	.000/0.000
	15	.000/17.0	.130/16.5	.237/16.1	.297/15.7	.301/15.7	.261/15.5	.212/15.7	.200/15.3	.189/15.0	.158/14.6	.112/14.3	.058/14.3	.000/0.000
	17	.000/18.0	.123/18.0	.224/17.5	.282/18.0	.290/17.5	.259/17.0	.220/18.0	.203/17.5	.188/17.0	.156/16.5	.111/14.6	.057/16.5	.000/0.000
	19	.000/18.5	.115/19.6	.210/19.0	.267/18.5	.279/19.6	.257/19.0	.225/18.0	.207/18.0	.187/17.5	.155/17.0	.110/16.5	.057/16.5	.000/0.000
15	7	.000/20.3	.109/19.6	.199/20.9	.255/20.9	.271/22.4	.256/21.7	.231/20.9	.211/20.3	.188/20.3	.154/19.6	.109/19.6	.057/19.0	.000/0.000
	9	.000/7.3	.183/19.6	.251/17.5	.305/14.3	.311/10.8	.276/8.3	.140/7.5	.161/7.0	.133/6.7	.083/6.8	.045/7.1	.020/7.3	.000/0.000
	11	.000/20.3	.190/19.6	.316/17.5	.392/14.3	.372/11.6	.287/9.2	.169/9.0	.176/8.7	.165/7.9	.124/8.1	.079/8.3	.038/8.3	.000/0.000
	13	.000/20.3	.183/19.6	.335/17.5	.407/14.3	.378/12.8	.285/12.1	.187/11.6	.169/10.1	.172/9.8	.137/9.5	.093/9.2	.047/9.8	.000/0.000
	15	.000/20.3	.164/19.6	.298/17.5	.363/14.3	.346/17.0	.279/15.7	.213/15.7	.189/15.3	.171/12.1	.140/11.6	.097/10.5	.050/10.1	.000/0.000
	17	.000/20.3	.154/19.6	.274/17.5	.335/17.5	.327/18.5	.275/17.5	.220/18.0	.193/17.5	.170/17.0	.138/16.5	.097/16.5	.050/16.5	.000/0.000
	19	.000/20.3	.141/19.6	.252/17.5	.311/20.3	.311/20.3	.271/19.6	.226/18.0	.197/20.3	.171/19.6	.137/17.0	.096/16.5	.049/16.5	.000/0.000
20	7	.000/20.3	.131/19.6	.235/17.5	.293/22.4	.298/20.9	.269/22.4	.231/20.9	.201/20.3	.172/20.3	.137/19.6	.096/19.6	.049/19.6	.000/0.000
	9	.000/0.000	.296/0.000	.469/28.6	.515/19.0	.435/13.4	.303/8.7	.139/7.5	.147/7.0	.117/6.7	.072/6.8	.038/7.1	.017/7.1	.000/0.000
	11	.000/0.000	.317/28.6	.500/23.3	.566/19.0	.483/13.4	.311/9.5	.169/9.0	.163/8.7	.147/8.3	.108/8.3	.068/8.7	.033/8.7	.000/0.000
	13	.000/0.000	.294/28.6	.469/23.3	.543/19.0	.467/13.4	.307/12.6	.167/11.6	.169/10.1	.155/9.8	.122/9.5	.082/9.2	.041/9.8	.000/0.000
	15	.000/0.000	.261/28.6	.422/23.3	.494/19.0	.435/13.4	.302/12.6	.201/14.0	.173/13.4	.155/12.1	.124/11.2	.086/11.2	.043/11.2	.000/0.000
	17	.000/0.000	.231/28.6	.377/23.3	.445/19.0	.402/13.4	.297/12.1	.213/15.7	.178/13.3	.155/15.0	.124/14.6	.086/14.3	.044/11.2	.000/0.000
	19	.000/0.000	.205/28.6	.338/23.3	.402/19.0	.373/13.4	.297/12.1	.221/18.0	.183/17.5	.155/17.0	.123/16.5	.085/16.5	.043/16.5	.000/0.000
25	7	.000/0.000	.184/28.6	.307/23.3	.367/19.0	.350/20.3	.286/19.6	.226/18.0	.188/20.3	.156/19.6	.122/19.6	.084/17.0	.043/16.5	.000/0.000
	9	.000/0.000	.167/28.6	.282/23.3	.341/19.0	.332/24.2	.282/22.4	.231/20.9	.193/20.3	.159/20.3	.123/19.6	.084/19.6	.043/19.6	.000/0.000
	11	.000/0.000	.257/9.8	.499/0.000	.748/34.9	.664/16.5	.333/9.2	.139/7.5	.134/7.0	.102/6.7	.061/6.8	.032/7.3	.014/7.3	.000/0.000
	13	.000/0.000	.360/0.000	.597/41.9	.719/24.2	.652/16.5	.339/11.2	.169/9.0	.151/9.0	.131/8.5	.095/8.5	.059/8.5	.028/8.7	.000/0.000
	15	.000/0.000	.357/0.000	.572/29.9	.709/24.2	.631/16.5	.332/13.1	.187/11.6	.158/10.8	.140/9.8	.108/9.5	.072/10.1	.036/9.8	.000/0.000
	17	.000/0.000	.327/33.1	.518/29.9	.624/24.2	.530/16.5	.325/15.0	.201/14.0	.163/13.4	.141/11.6	.111/11.6	.076/11.2	.039/11.2	.000/0.000
	19	.000/0.000	.293/33.1	.465/29.9	.551/24.2	.477/16.5	.318/16.5	.213/15.7	.169/15.3	.141/15.0	.111/13.1	.076/12.5	.039/12.5	.000/0.000
	7	.000/0.000	.263/33.1	.418/29.9	.491/24.2	.434/16.5	.310/16.5	.221/18.0	.174/17.5	.142/17.0	.110/16.5	.075/16.5	.039/16.5	.000/0.000
	9	.000/0.000	.236/33.1	.379/29.9	.444/24.2	.401/16.5	.297/23.3	.232/18.0	.179/20.3	.144/19.6	.110/19.6	.075/19.6	.038/19.6	.000/0.000
	11	.000/0.000	.215/33.1	.348/29.9	.408/24.2	.376/16.5	.297/23.3	.232/20.9	.185/20.3	.147/20.3	.112/19.6	.075/19.6	.038/19.6	.000/0.000
	13	.000/0.000												
	15	.000/0.000												
	17	.000/0.000												
	19	.000/0.000												

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

LONGCRESTED
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/.9.2	.027/10.5	.056/9.2	.097/9.0	.157/8.3	.204/7.0	.143/7.0	.212/6.3	.178/6.3	.111/6.4	.061/6.7	.027/7.00.000/0.000	
	9	.000/11.6	.041/11.2	.084/10.8	.130/9.2	.175/8.7	.196/7.9	.138/8.3	.189/7.0	.185/7.1	.137/7.5	.086/7.7	.041/7.90.000/0.000	
	11	.000/12.6	.048/12.1	.093/12.1	.135/11.2	.166/9.0	.171/8.5	.128/8.7	.162/8.5	.166/7.9	.133/8.5	.089/8.3	.044/8.30.000/0.000	
	13	.000/13.4	.048/13.4	.092/13.1	.128/12.6	.150/12.6	.149/12.1	.118/12.6	.140/12.1	.145/8.5	.121/8.5	.084/8.5	.042/8.70.000/0.000	
	15	.000/14.3	.045/14.3	.086/14.0	.117/13.7	.134/13.4	.132/13.4	.109/14.0	.123/13.4	.127/12.1	.108/11.6	.076/11.6	.039/12.10.000/0.000	
	17	.000/16.0	.041/14.6	.078/14.3	.105/15.0	.120/15.0	.118/16.1	.101/15.7	.111/15.3	.112/13.4	.096/12.8	.069/12.8	.036/12.60.000/0.000	
	19	.000/15.7	.037/15.7	.070/15.7	.095/15.3	.108/15.3	.107/16.1	.094/16.0	.100/17.5	.100/15.0	.086/14.6	.062/14.3	.032/14.30.000/0.000	
	21	.000/17.5	.034/17.5	.064/17.0	.086/17.0	.097/15.5	.077/18.5	.088/18.0	.092/17.5	.091/17.0	.078/16.5	.056/16.5	.029/14.30.000/0.000	
10	7	.000/13.7	.029/13.4	.062/12.6	.106/10.8	.165/9.0	.213/7.5	.139/7.0	.203/6.3	.170/6.3	.106/6.8	.058/6.7	.026/7.00.000/0.000	
	9	.000/14.3	.047/14.0	.096/13.1	.144/11.8	.183/9.5	.198/8.3	.136/8.3	.182/7.0	.178/7.1	.133/7.5	.084/7.7	.041/7.90.000/0.000	
	11	.000/14.6	.054/14.6	.106/13.7	.150/12.6	.174/11.2	.173/8.7	.127/9.0	.157/8.7	.160/8.1	.129/8.3	.087/8.5	.044/8.70.000/0.000	
	13	.000/15.3	.053/15.0	.103/14.3	.141/13.4	.158/12.6	.152/12.6	.118/12.6	.136/12.1	.140/9.0	.116/9.0	.081/9.2	.042/9.00.000/0.000	
	15	.000/16.1	.050/15.7	.094/15.0	.127/14.3	.141/13.4	.135/14.0	.109/14.0	.120/13.4	.122/13.1	.104/9.2	.074/9.2	.038/9.20.000/0.000	
	17	.000/16.1	.045/16.1	.085/15.3	.114/15.3	.128/15.7	.121/16.5	.102/15.7	.108/15.3	.108/14.6	.092/13.1	.066/12.8	.034/14.00.000/0.000	
	19	.000/17.0	.040/17.0	.076/16.1	.102/16.5	.113/17.5	.109/16.5	.094/18.0	.094/17.5	.096/15.0	.082/14.6	.059/14.3	.031/14.30.000/0.000	
	21	.000/17.0	.036/17.0	.068/17.5	.091/18.0	.102/18.0	.099/19.0	.088/18.0	.089/17.5	.087/17.0	.074/17.0	.053/16.5	.028/16.50.000/0.000	
15	7	.000/20.3	.032/19.6	.072/17.5	.125/14.3	.178/10.5	.216/7.9	.136/7.0	.193/5.7	.160/6.3	.100/6.4	.054/6.7	.024/7.00.000/0.000	
	9	.000/20.3	.051/19.6	.108/17.5	.165/14.3	.198/11.2	.200/8.5	.135/8.5	.175/7.1	.164/7.5	.127/7.7	.080/8.1	.039/8.10.000/0.000	
	11	.000/20.3	.057/19.6	.116/17.5	.166/14.3	.189/12.1	.176/9.0	.127/9.2	.151/9.2	.153/7.9	.124/8.3	.084/8.5	.042/8.70.000/0.000	
	13	.000/20.3	.055/19.6	.110/17.5	.153/14.3	.169/13.1	.155/12.8	.118/12.6	.132/10.8	.134/9.2	.112/9.0	.078/9.2	.040/9.20.000/0.000	
	15	.000/20.3	.051/19.6	.099/17.5	.137/14.3	.150/14.0	.138/14.0	.109/14.0	.117/13.1	.117/13.1	.099/10.1	.071/10.1	.037/10.10.000/0.000	
	17	.000/20.3	.045/19.6	.085/17.5	.121/14.3	.133/15.7	.123/15.7	.102/15.7	.105/15.3	.103/15.0	.088/13.1	.063/14.3	.033/10.10.000/0.000	
	19	.000/20.3	.041/19.6	.078/17.5	.107/14.3	.118/17.0	.111/17.0	.095/18.0	.095/17.5	.092/17.0	.078/14.6	.056/14.6	.029/14.30.000/0.000	
	21	.000/20.3	.036/19.6	.070/17.5	.096/14.3	.106/18.5	.101/19.0	.088/18.0	.087/17.5	.083/17.5	.071/17.0	.051/16.5	.026/16.50.000/0.000	
20	7	.000/0.000	.031/34.9	.073/26.2	.135/19.0	.200/13.4	.218/8.5	.135/7.0	.185/5.7	.151/6.3	.093/6.8	.051/6.7	.022/7.00.000/0.000	
	9	.000/0.000	.049/27.3	.103/23.3	.172/19.0	.218/13.4	.201/9.0	.134/8.5	.168/7.5	.161/7.7	.120/7.7	.076/7.9	.037/8.10.000/0.000	
	11	.000/27.3	.054/26.2	.102/23.3	.171/19.0	.203/13.4	.178/11.6	.126/9.2	.147/9.2	.147/8.3	.119/8.5	.081/8.7	.041/9.00.000/0.000	
	13	.000/27.3	.052/26.2	.102/23.3	.156/19.0	.180/13.4	.157/13.4	.118/12.6	.128/10.8	.129/9.5	.107/9.0	.075/9.2	.039/9.20.000/0.000	
	15	.000/27.3	.048/26.2	.093/23.3	.138/19.0	.158/13.4	.140/14.6	.109/14.0	.113/13.4	.112/11.6	.095/10.5	.068/10.1	.035/10.10.000/0.000	
	17	.000/27.3	.044/26.2	.084/23.3	.122/19.0	.139/13.4	.125/16.1	.102/15.7	.102/15.3	.099/15.0	.084/11.6	.060/11.2	.031/11.20.000/0.000	
	19	.000/27.3	.040/26.2	.075/23.3	.108/19.0	.123/13.4	.113/17.5	.095/18.0	.092/17.5	.088/17.0	.075/14.6	.054/14.6	.028/11.20.000/0.000	
	21	.000/27.3	.036/26.2	.069/23.3	.097/19.0	.110/13.4	.103/19.6	.088/18.0	.085/18.0	.080/17.5	.067/17.0	.048/16.5	.025/16.50.000/0.000	
25	7	.000/0.000	.019/78.5	.042/48.3	.111/28.6	.212/16.5	.217/9.0	.133/7.0	.176/5.7	.141/6.5	.087/6.8	.047/7.1	.020/7.10.000/0.000	
	9	.000/0.000	.030/44.9	.069/33.1	.150/24.2	.228/16.5	.202/9.2	.134/8.5	.162/7.5	.153/7.5	.113/7.5	.072/7.7	.035/7.70.000/0.000	
	11	.000/0.000	.039/34.9	.082/29.9	.153/24.2	.210/16.5	.180/12.1	.126/9.2	.142/9.2	.140/8.5	.113/9.0	.077/9.0	.039/9.00.000/0.000	
	13	.000/0.000	.042/33.1	.082/29.9	.130/24.2	.186/16.5	.159/14.0	.118/12.6	.124/10.8	.123/9.2	.102/9.2	.072/9.2	.037/9.20.000/0.000	
	15	.000/0.000	.042/33.1	.077/29.9	.117/24.2	.163/16.5	.142/15.3	.110/14.0	.110/13.4	.108/11.6	.091/10.5	.065/10.1	.030/11.20.000/0.000	
	17	.000/33.1	.041/33.1	.077/29.9	.117/24.2	.143/16.5	.128/16.5	.102/15.7	.099/15.3	.095/15.0	.080/12.8	.058/11.2	.030/11.20.000/0.000	
	19	.000/33.1	.038/33.1	.072/29.9	.105/24.2	.127/16.5	.115/18.0	.095/18.0	.090/17.5	.085/17.0	.071/14.6	.051/12.6	.027/12.60.000/0.000	
	21	.000/33.1	.036/33.1	.067/29.9	.096/24.2	.114/16.5	.105/20.3	.089/18.0	.083/18.0	.077/19.6	.064/17.0	.046/16.5	.024/16.50.000/0.000	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

LUNGCRESTED

RMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

OE

(ACC. X 100)

AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/9.2	.056/9.5	.120/9.2	.218/8.7	.385/7.9	.612/6.7	.897/6.3	.770/5.2	.585/5.7	.369/6.4	.194/6.7	.088/6.50.000/0.000	.000/0.000
	9	.000/11.2	.074/11.6	.160/11.5	.260/10.8	.394/8.5	.520/7.3	.698/7.9	.608/6.3	.544/6.5	.381/6.8	.233/7.1	.111/7.30.000/0.000	.000/0.000
	11	.000/12.6	.074/12.6	.147/12.1	.249/11.2	.343/8.7	.415/7.9	.522/8.3	.469/6.5	.448/6.7	.338/7.3	.219/7.7	.108/8.10.000/0.000	.000/0.000
	13	.000/13.4	.066/13.1	.130/12.6	.189/11.6	.241/8.7	.271/8.3	.320/12.6	.295/8.1	.294/7.1	.236/7.9	.161/8.1	.082/8.30.000/0.000	.000/0.000
	15	.000/13.4	.059/13.4	.113/13.1	.162/12.6	.203/8.7	.224/8.3	.286/14.0	.242/8.3	.242/7.5	.197/8.1	.137/8.3	.070/8.50.000/0.000	.000/0.000
	17	.000/14.3	.050/13.4	.097/13.1	.139/12.8	.172/12.6	.189/8.3	.159/14.0	.203/13.4	.203/7.7	.167/8.1	.116/8.3	.060/8.50.000/0.000	.000/0.000
10	7	.000/13.7	.041/13.4	.096/12.6	.148/10.8	.353/9.0	.579/7.0	.885/6.3	.786/5.2	.617/5.7	.374/6.4	.207/6.7	.093/7.00.000/0.000	.000/0.000
	9	.000/14.3	.065/14.0	.142/12.8	.239/11.6	.361/8.2	.491/7.7	.688/7.9	.620/6.3	.535/6.7	.343/7.0	.257/7.3	.123/7.50.000/0.000	.000/0.000
	11	.000/14.6	.071/14.3	.149/13.7	.233/12.1	.319/9.5	.394/8.1	.517/8.3	.473/7.0	.433/7.1	.366/7.5	.243/7.7	.121/7.90.000/0.000	.000/0.000
	13	.000/15.0	.068/14.6	.138/13.7	.208/12.6	.270/11.2	.317/8.3	.375/7.9	.308/7.0	.308/7.1	.254/7.9	.177/8.3	.091/8.70.000/0.000	.000/0.000
	15	.000/15.3	.060/15.0	.122/14.0	.180/12.8	.228/11.6	.259/8.3	.318/12.6	.301/7.0	.308/7.1	.254/7.9	.177/8.3	.091/8.70.000/0.000	.000/0.000
	17	.000/15.3	.053/15.0	.106/14.3	.154/13.1	.192/12.1	.216/8.3	.284/14.0	.247/8.5	.254/7.1	.221/8.1	.149/8.5	.077/8.70.000/0.000	.000/0.000
15	7	.000/15.3	.046/15.3	.091/14.6	.132/13.4	.164/12.6	.182/14.6	.158/14.0	.206/13.7	.212/7.1	.177/8.3	.126/8.7	.065/9.00.000/0.000	.000/0.000
	9	.000/16.1	.040/15.7	.079/14.6	.114/13.7	.141/13.4	.156/15.0	.137/15.7	.175/15.3	.179/7.5	.151/8.3	.107/8.7	.056/9.00.000/0.000	.000/0.000
	11	.000/20.3	.030/19.6	.078/17.5	.170/14.3	.318/10.5	.540/7.7	.873/6.3	.793/5.2	.635/5.7	.393/6.3	.218/6.5	.097/6.50.000/0.000	.000/0.000
	13	.000/20.3	.051/19.6	.120/17.5	.220/14.3	.334/10.8	.459/8.1	.627/7.9	.594/7.0	.489/7.1	.388/7.7	.261/8.1	.131/8.30.000/0.000	.000/0.000
	15	.000/20.3	.051/19.6	.127/17.5	.215/14.3	.329/11.2	.471/8.3	.631/8.5	.584/7.0	.489/7.1	.388/7.7	.261/8.1	.131/8.30.000/0.000	.000/0.000
	17	.000/20.3	.049/19.6	.105/17.5	.165/14.3	.216/12.1	.247/8.5	.316/12.6	.305/7.0	.318/7.7	.267/8.1	.189/8.3	.098/8.50.000/0.000	.000/0.000
20	7	.000/20.3	.043/19.6	.091/17.5	.142/14.3	.183/12.6	.207/13.1	.247/14.0	.250/9.2	.261/7.7	.222/8.1	.158/8.5	.082/8.70.000/0.000	.000/0.000
	9	.000/20.3	.038/19.6	.079/17.5	.122/14.3	.156/12.8	.175/14.0	.157/14.0	.208/13.7	.218/7.7	.186/8.1	.133/8.5	.070/9.00.000/0.000	.000/0.000
	11	.000/20.3	.033/19.6	.069/17.5	.105/14.3	.134/12.8	.150/15.3	.136/15.7	.176/15.3	.184/7.7	.158/8.1	.113/8.7	.059/9.00.000/0.000	.000/0.000
	13	.000/34.9	.022/31.4	.051/26.2	.129/19.0	.290/13.4	.498/8.3	.867/6.3	.799/5.2	.648/6.3	.405/6.4	.227/6.7	.101/7.00.000/0.000	.000/0.000
	15	.000/28.6	.032/26.2	.078/23.3	.172/19.0	.308/13.4	.425/8.5	.637/7.9	.634/5.7	.609/6.3	.453/6.8	.289/7.1	.139/7.30.000/0.000	.000/0.000
	17	.000/27.3	.037/26.2	.086/23.3	.172/19.0	.277/13.4	.466/8.7	.631/8.5	.640/7.0	.602/7.1	.405/7.1	.275/8.1	.139/8.30.000/0.000	.000/0.000
25	7	.000/27.3	.037/26.2	.082/23.3	.156/19.0	.237/13.4	.423/9.0	.557/9.0	.584/7.5	.494/7.9	.338/8.3	.237/8.7	.122/8.70.000/0.000	.000/0.000
	9	.000/27.3	.035/26.2	.075/23.3	.137/19.0	.201/13.4	.385/9.0	.515/12.6	.508/7.5	.397/7.9	.279/8.3	.199/8.7	.104/9.00.000/0.000	.000/0.000
	11	.000/27.3	.031/26.2	.067/23.3	.116/19.0	.171/13.4	.319/13.4	.483/14.0	.452/14.0	.368/7.9	.253/8.5	.166/8.7	.087/9.00.000/0.000	.000/0.000
	13	.000/27.3	.028/26.2	.060/23.3	.103/19.0	.146/13.4	.257/14.6	.413/14.0	.410/13.7	.323/8.1	.193/8.5	.140/8.7	.074/9.00.000/0.000	.000/0.000
	15	.000/27.3	.026/26.2	.053/23.3	.090/19.0	.126/13.4	.144/15.7	.336/15.7	.318/15.7	.233/8.1	.163/8.5	.119/8.7	.063/9.20.000/0.000	.000/0.000
	17	.000/7.7	.023/7.3	.035/41.9	.074/27.3	.233/16.5	.446/9.0	.865/6.3	.803/5.2	.652/6.3	.409/6.4	.232/6.7	.103/7.00.000/0.000	.000/0.000
25	9	.000/48.3	.019/39.3	.040/33.1	.107/24.2	.258/16.5	.387/9.0	.574/7.9	.638/7.7	.617/6.7	.462/6.8	.298/7.3	.144/7.70.000/0.000	.000/0.000
	11	.000/37.0	.021/33.1	.049/29.9	.116/24.2	.237/16.5	.320/9.2	.509/8.5	.494/7.0	.511/6.7	.414/7.3	.285/7.5	.144/7.70.000/0.000	.000/0.000
	13	.000/33.1	.023/33.1	.052/29.9	.111/24.2	.207/16.5	.265/9.0	.456/9.0	.388/7.5	.411/6.7	.347/7.9	.246/8.5	.128/8.70.000/0.000	.000/0.000
	15	.000/33.1	.024/33.1	.052/29.9	.102/24.2	.177/16.5	.221/9.2	.415/12.6	.311/9.5	.332/8.3	.286/8.7	.207/9.0	.109/9.00.000/0.000	.000/0.000
	17	.000/33.1	.023/33.1	.049/29.9	.091/24.2	.152/16.5	.187/14.0	.333/14.0	.254/10.1	.272/8.3	.236/9.0	.173/9.2	.091/9.20.000/0.000	.000/0.000
	19	.000/33.1	.022/33.1	.046/29.9	.081/24.2	.131/16.5	.159/15.0	.316/15.0	.212/10.1	.218/8.5	.198/9.0	.145/9.2	.077/9.20.000/0.000	.000/0.000
21	.000/33.1	.020/33.1	.042/29.9	.073/24.2	.114/16.5	.138/16.5	.316/15.7	.179/15.3	.191/8.5	.167/9.0	.123/9.2	.066/9.20.000/0.000	.000/0.000	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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DE 1078

LONGCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM HL

SHIP HEADING ANGLE IN DEGREES														
	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	114/10.5	121/10.5	142/10.1	183/9.2	251/8.1	316/6.7	422/7.0	262/6.5	271/6.5	221/6.8	176/7.1	152/7.1	144/7.0
9	9	210/11.6	216/11.6	234/11.2	262/10.5	294/9.5	305/8.7	235/9.0	279/8.3	318/7.7	305/7.9	280/8.1	261/8.3	255/8.3
11	11	268/13.1	272/12.6	281/12.1	293/11.9	301/11.2	290/10.8	242/11.2	277/10.8	319/9.5	327/9.2	320/9.2	313/9.2	310/9.2
13	13	293/14.3	294/14.3	297/14.0	293/13.7	281/13.4	278/13.1	246/12.6	277/12.1	308/11.6	324/11.2	328/11.2	325/11.2	326/11.2
15	15	300/15.7	300/15.7	299/15.3	296/15.3	287/15.0	271/14.6	249/15.7	267/15.0	297/13.4	314/12.8	322/12.6	325/12.6	326/12.6
17	17	297/17.5	296/17.5	294/17.5	289/17.0	279/17.5	264/16.5	249/18.0	262/17.5	286/16.0	303/14.6	312/14.3	316/14.3	318/14.3
19	19	292/19.6	291/19.6	288/19.6	282/19.0	273/19.0	260/18.5	249/18.0	259/17.5	278/17.5	292/17.0	302/16.5	307/16.5	308/16.5
21	21	287/22.4	286/22.4	283/22.4	277/21.7	268/21.7	259/20.9	250/20.9	258/20.3	273/20.3	285/19.6	293/19.6	298/19.0	300/19.0
10	7	097/13.7	102/12.8	122/12.6	158/11.2	214/9.2	278/7.3	209/7.0	240/6.5	242/6.7	201/6.8	164/7.1	142/7.1	135/7.1
9	9	186/14.6	191/14.3	203/13.4	234/12.1	260/10.8	274/9.2	222/9.0	261/8.3	294/7.9	287/8.1	268/8.1	253/8.3	247/8.3
11	11	242/15.3	245/15.0	255/14.3	266/13.4	272/12.1	266/11.5	230/11.2	261/10.8	299/9.5	311/9.2	304/9.2	304/9.2	301/9.2
13	13	257/16.1	259/16.1	272/15.3	275/14.6	272/14.3	259/13.4	235/12.6	258/12.1	292/11.6	310/11.2	316/11.2	317/11.2	317/10.8
15	15	276/18.0	277/18.0	277/17.5	275/18.5	268/17.7	254/17.5	238/17.0	255/17.0	283/15.4	302/14.6	311/12.8	316/12.6	316/12.6
17	17	277/19.6	276/19.6	274/19.6	270/19.5	262/19.5	251/19.0	239/18.0	252/17.5	274/15.0	291/14.6	302/14.6	307/14.3	309/14.3
19	19	274/21.7	273/21.7	271/20.9	266/20.9	258/19.6	248/19.0	240/18.0	250/17.5	268/17.5	282/17.0	285/16.5	298/16.5	299/16.5
21	21	271/24.2	270/24.2	268/24.2	263/23.3	256/22.4	248/21.7	242/20.9	250/20.3	264/20.3	276/19.6	285/19.6	290/19.0	292/19.0
15	7	085/20.3	090/19.6	106/17.5	139/14.3	190/10.8	246/7.9	197/7.0	228/6.5	221/6.7	181/6.8	147/7.1	127/7.1	120/7.3
9	9	166/20.3	171/19.6	186/17.5	210/14.3	236/12.1	248/10.5	212/9.0	259/8.3	275/8.1	267/8.1	249/8.1	235/8.3	230/8.3
11	11	219/20.3	222/19.6	239/17.5	242/15.0	251/13.4	245/12.1	219/11.2	250/10.1	278/9.5	294/9.5	292/9.2	287/9.2	285/9.8
13	13	244/20.3	245/19.6	249/17.5	253/15.5	252/13.3	241/14.0	224/12.6	247/12.1	278/11.6	295/11.2	301/11.2	302/11.2	302/11.2
15	15	255/20.3	255/19.6	259/17.5	253/18.5	250/17.0	240/15.7	228/14.6	245/15.0	271/13.4	288/13.1	298/12.8	302/12.6	303/12.6
17	17	257/20.3	257/19.6	256/20.9	253/20.3	247/19.0	238/18.0	230/17.5	243/17.5	263/17.0	279/16.6	289/16.6	295/16.6	296/16.6
19	19	257/20.3	256/20.3	254/20.3	250/22.4	245/20.9	237/19.6	231/18.0	241/17.5	258/17.5	272/17.0	281/16.5	286/16.5	288/16.5
21	21	255/25.1	255/25.1	253/26.2	249/25.1	244/23.3	239/22.4	234/20.9	242/20.3	255/20.3	266/19.6	275/19.6	280/19.6	281/19.0
20	7	082/34.9	085/31.4	097/25.1	123/19.0	172/13.4	220/8.5	188/7.0	222/6.3	211/6.7	170/6.8	136/7.1	116/7.3	110/7.3
9	9	154/27.3	157/26.2	167/23.3	187/19.0	216/13.4	226/10.8	202/9.0	243/8.3	265/7.9	255/7.9	237/8.1	223/8.3	218/8.3
11	11	202/27.3	203/26.2	208/23.3	218/19.0	230/13.4	226/12.6	210/11.2	243/10.1	273/9.8	282/9.5	279/9.2	274/9.8	272/9.8
13	13	226/27.3	226/26.2	226/23.3	230/19.0	233/13.4	226/14.6	215/12.6	240/12.1	268/11.6	283/11.6	288/11.2	289/11.2	289/11.2
15	15	231/27.3	236/26.2	235/23.3	234/19.0	233/13.4	226/16.1	219/15.7	237/15.3	262/14.6	277/13.1	286/12.8	289/12.6	290/12.6
17	17	240/27.3	239/26.2	237/23.3	235/19.0	231/20.3	225/19.6	221/18.0	235/17.5	255/17.5	269/16.6	283/16.6	283/16.6	285/16.6
19	19	241/27.3	240/26.2	238/23.3	234/24.2	231/21.7	226/20.9	223/18.0	234/18.0	249/17.5	262/17.0	271/16.5	276/16.5	277/16.5
21	21	242/27.3	241/26.2	239/23.3	235/26.2	232/22.4	228/22.4	226/20.9	234/20.3	247/20.3	258/19.6	265/19.6	270/19.6	272/19.0
25	7	080/44.9	086/44.9	093/32.4	111/27.3	153/16.5	201/8.7	179/7.0	222/6.5	206/6.7	164/7.3	129/7.3	109/7.3	102/7.5
9	9	144/52.4	149/44.9	154/33.1	166/24.2	193/16.5	209/11.2	194/9.0	242/8.3	263/7.7	253/7.7	234/8.1	220/8.1	215/8.3
11	11	186/37.0	188/33.1	190/29.9	194/24.2	207/16.5	211/13.1	202/11.2	240/10.1	270/9.8	278/9.5	275/9.2	270/9.0	268/9.0
13	13	207/33.1	208/33.1	207/29.9	207/24.2	212/16.5	211/15.0	205/12.6	235/12.1	264/11.6	278/11.6	283/11.2	283/11.2	283/11.2
15	15	218/33.1	217/33.1	216/29.9	213/24.2	214/16.5	213/16.5	210/15.7	232/15.3	256/14.6	271/13.1	279/12.8	282/12.6	283/12.6
17	17	222/33.1	221/33.1	219/29.9	216/24.2	215/16.5	213/16.5	212/18.0	229/17.5	249/17.0	263/16.5	271/16.6	276/16.6	277/16.6
19	19	226/33.1	223/33.1	221/29.9	218/24.2	216/16.5	215/20.3	215/18.0	227/18.0	243/17.5	256/17.0	264/16.5	268/16.5	270/16.5
21	21	226/33.1	225/33.1	223/29.9	220/24.2	219/20.3	217/23.3	218/20.9	228/20.3	240/20.3	251/19.6	258/19.6	263/19.6	264/19.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

		SHIP HEADING ANGLE IN DEGREES															
		DE 1078															
		LONGCHESSED															
		RMS VER VEL IN FPS/ENCOUNTERED MODAL PL1000, T, IN SECONDS															
		AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM HL															
V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	.073/10.5	.078/10.5	.095/9.8	.131/9.0	.202/7.9	.308/6.3	.434/5.2	.574/4.3	.722/3.3	.874/2.4	.102/1.5	.117/1.5	.131/1.5	.147/1.0	.160/7.0	.170/7.0
9	9	.116/11.6	.121/11.2	.137/10.8	.185/9.8	.259/8.7	.354/7.9	.484/7.0	.644/6.3	.834/5.5	.105/4.6	.128/3.7	.151/2.8	.174/2.0	.197/1.5	.220/1.0	.244/0.8
11	11	.135/12.1	.139/12.1	.150/11.5	.187/10.6	.241/9.8	.317/9.0	.424/8.3	.564/7.5	.744/6.7	.964/6.0	.122/5.1	.145/4.2	.168/3.5	.191/2.8	.214/2.2	.237/1.7
13	13	.137/13.4	.139/13.4	.146/12.8	.182/12.8	.241/12.1	.317/11.6	.424/10.8	.564/10.0	.744/9.2	.964/8.5	.122/7.6	.145/6.9	.168/6.2	.191/5.5	.214/4.8	.237/4.1
15	15	.130/14.3	.131/14.3	.136/14.0	.172/14.0	.231/13.4	.307/12.8	.414/12.1	.554/11.6	.734/10.8	.954/10.0	.122/9.1	.145/8.4	.168/7.7	.191/7.0	.214/6.3	.237/5.6
17	17	.120/15.7	.121/15.7	.124/15.3	.159/15.3	.218/14.6	.294/14.0	.391/13.4	.514/12.8	.674/12.1	.864/11.6	.108/10.8	.131/10.0	.154/9.2	.177/8.5	.199/7.8	.222/7.1
19	19	.111/17.5	.111/17.5	.113/17.0	.148/17.0	.207/16.5	.283/16.0	.380/15.3	.494/14.6	.634/14.0	.814/13.4	.103/12.8	.126/12.1	.149/11.6	.172/10.8	.195/10.0	.218/9.2
21	21	.102/18.0	.102/18.0	.103/19.0	.138/19.0	.197/18.5	.273/18.0	.370/17.5	.484/16.9	.624/16.3	.804/15.7	.102/15.1	.125/14.4	.148/13.7	.171/13.0	.194/12.2	.217/11.5
10	7	.044/13.7	.047/12.8	.061/12.5	.090/10.8	.146/9.0	.249/7.9	.419/6.3	.663/5.3	.984/4.3	.131/3.3	.154/2.6	.177/1.9	.199/1.2	.222/0.8	.244/0.5	.267/0.3
9	9	.079/14.3	.083/14.0	.097/13.1	.122/11.6	.180/10.1	.284/8.5	.444/7.0	.688/6.0	.105/5.1	.128/4.4	.151/3.7	.174/3.0	.197/2.3	.220/1.6	.243/1.0	.266/0.7
11	11	.098/15.0	.101/15.0	.111/14.0	.136/12.9	.194/11.2	.298/9.8	.458/8.3	.702/7.0	.107/6.0	.130/5.3	.153/4.6	.176/3.9	.199/3.2	.222/2.5	.245/1.8	.268/1.2
13	13	.102/16.1	.104/16.1	.112/15.0	.137/14.0	.195/12.8	.299/11.6	.459/10.0	.703/8.5	.107/7.5	.130/6.8	.153/6.1	.176/5.4	.199/4.7	.222/4.0	.245/3.3	.268/2.6
15	15	.100/17.0	.101/17.0	.108/16.5	.133/15.3	.191/14.6	.295/13.4	.455/12.1	.700/10.8	.106/9.8	.129/9.1	.152/8.4	.175/7.7	.198/7.0	.221/6.3	.244/5.6	.267/4.9
17	17	.094/18.0	.096/18.0	.099/17.5	.124/16.5	.182/15.3	.286/14.0	.446/12.8	.690/11.6	.100/10.8	.123/10.0	.146/9.2	.169/8.5	.192/7.8	.215/7.1	.238/6.4	.261/5.7
19	19	.088/19.6	.089/19.6	.092/19.0	.117/18.5	.175/17.5	.279/16.5	.439/15.3	.683/14.0	.100/13.4	.123/12.7	.146/12.0	.169/11.3	.192/10.6	.215/9.9	.238/9.2	.261/8.5
21	21	.082/21.7	.083/21.7	.085/20.9	.110/20.3	.168/19.0	.272/18.0	.432/16.9	.676/15.7	.100/14.6	.123/13.9	.146/13.2	.169/12.5	.192/11.8	.215/11.1	.238/10.4	.261/9.7
15	7	.025/20.3	.028/19.6	.038/17.5	.061/14.3	.108/10.9	.200/7.5	.305/6.3	.462/5.3	.682/4.3	.962/3.3	.124/2.4	.147/1.7	.170/1.0	.193/0.7	.216/0.4	.239/0.2
9	9	.051/20.3	.055/19.6	.066/17.5	.089/14.3	.125/11.6	.177/8.5	.282/7.9	.444/7.0	.664/6.0	.944/5.3	.126/4.4	.149/3.7	.172/3.0	.195/2.3	.218/1.6	.241/1.0
11	11	.067/20.3	.070/19.6	.080/17.5	.097/14.3	.122/12.9	.153/11.2	.199/9.8	.294/8.5	.444/7.5	.664/6.8	.944/6.0	.126/5.1	.149/4.4	.172/3.7	.195/3.0	.218/2.3
13	13	.074/20.3	.076/19.6	.083/17.5	.096/15.3	.113/13.7	.134/12.8	.161/11.6	.181/10.8	.220/9.2	.334/8.5	.484/7.8	.634/7.0	.784/6.3	.934/5.6	.108/4.9	.123/4.2
15	15	.074/20.3	.076/19.6	.082/17.5	.091/16.5	.104/15.7	.119/14.0	.126/14.0	.157/12.1	.191/11.5	.210/10.1	.220/10.1	.224/10.1	.224/10.1	.224/10.1	.224/10.1	.224/10.1
17	17	.072/20.3	.074/19.6	.085/18.5	.095/16.5	.107/15.7	.113/15.7	.138/13.7	.166/13.1	.166/13.1	.184/12.8	.194/12.8	.194/12.8	.194/12.8	.194/12.8	.194/12.8	.194/12.8
19	19	.069/20.3	.070/19.6	.074/17.5	.080/20.3	.087/18.5	.097/17.5	.103/15.7	.123/15.3	.146/15.0	.162/14.6	.171/14.3	.177/14.3	.177/14.3	.177/14.3	.177/14.3	.177/14.3
21	21	.066/20.3	.067/19.6	.070/23.3	.075/22.4	.081/20.9	.088/19.6	.094/18.0	.111/17.5	.130/17.0	.144/16.5	.153/16.5	.157/16.5	.157/16.5	.157/16.5	.157/16.5	.157/16.5
20	7	.017/23.1	.017/23.9	.022/24.2	.038/19.0	.080/13.4	.151/8.1	.193/6.3	.266/6.3	.263/6.3	.218/6.8	.178/7.1	.154/7.1	.131/7.1	.107/7.1	.083/7.1	.059/7.1
9	9	.031/27.3	.034/26.2	.042/23.3	.061/19.0	.096/13.4	.147/9.2	.173/7.9	.249/6.5	.289/7.0	.285/7.3	.268/7.5	.254/7.7	.239/7.7	.224/7.7	.209/7.7	.194/7.7
11	11	.044/27.3	.047/26.2	.055/23.3	.071/19.0	.097/13.4	.131/11.6	.152/9.8	.215/8.5	.262/7.7	.278/8.1	.279/8.3	.276/8.3	.272/8.3	.267/8.3	.262/8.3	.257/8.3
13	13	.051/27.3	.053/26.2	.060/23.3	.073/19.0	.092/13.4	.115/13.4	.134/11.6	.184/10.0	.227/9.2	.249/9.0	.258/9.2	.261/9.2	.257/9.2	.252/9.2	.247/9.2	.242/9.2
15	15	.054/27.3	.056/26.2	.061/23.3	.071/19.0	.086/13.4	.105/14.6	.120/14.0	.159/13.1	.196/10.8	.218/10.5	.230/10.1	.235/10.1	.237/10.1	.237/10.1	.237/10.1	.237/10.1
17	17	.054/27.3	.056/26.2	.060/23.3	.068/19.0	.080/18.5	.093/17.5	.108/15.7	.134/13.7	.170/13.1	.190/12.8	.202/12.2	.209/12.2	.211/12.2	.211/12.2	.211/12.2	.211/12.2
19	19	.053/27.3	.055/26.2	.058/23.3	.065/19.0	.075/20.3	.087/19.0	.098/18.0	.123/15.3	.149/15.0	.167/14.6	.179/14.3	.185/14.3	.187/14.3	.187/14.3	.187/14.3	.187/14.3
21	21	.052/27.3	.053/26.2	.056/23.3	.062/19.0	.070/21.7	.080/19.6	.090/18.0	.111/17.5	.133/17.0	.148/16.5	.159/16.5	.164/16.5	.166/16.5	.166/16.5	.166/16.5	.166/16.5
25	7	.020/7.5	.019/7.3	.019/41.9	.023/26.2	.055/16.5	.131/8.7	.183/6.3	.274/6.3	.272/6.7	.223/6.8	.180/7.1	.155/7.3	.131/7.3	.107/7.3	.083/7.3	.059/7.3
9	9	.020/41.9	.021/39.3	.026/31.4	.039/24.2	.071/16.5	.124/8.7	.165/7.9	.259/6.5	.305/7.1	.303/7.3	.286/7.7	.272/7.9	.257/7.9	.242/7.9	.227/7.9	.212/7.9
11	11	.027/34.9	.029/33.1	.035/29.9	.049/24.2	.075/16.5	.112/12.1	.145/10.5	.222/8.3	.276/7.1	.297/7.7	.299/8.1	.297/8.3	.292/8.3	.287/8.3	.282/8.3	.277/8.3
13	13	.033/33.1	.035/33.1	.041/29.9	.053/24.2	.073/16.5	.102/14.0	.129/11.6	.189/10.1	.238/9.2	.264/9.9	.276/8.3	.280/8.5	.281/8.5	.281/8.5	.281/8.5	.281/8.5
15	15	.037/33.1	.039/33.1	.044/29.9	.054/24.2	.070/16.5	.103/15.3	.115/14.0	.162/12.1	.208/10.9	.230/10.1	.244/10.1	.251/10.1	.253/10.1	.253/10.1	.253/10.1	.253/10.1
17	17	.039/33.1	.040/33.1	.045/29.9	.054/24.2	.067/16.5	.104/15.7	.104/15.7	.147/13.1	.177/13.1	.200/11.6	.215/11.2	.222/11.2	.222/11.2	.222/11.2	.222/11.2	.222/11.2
19	19	.040/33.1	.041/33.1	.045/29.9	.052/24.2	.064/16.5	.104/15.5	.095/18.0	.125/15.3	.157/15.0	.155/16.5	.167/16.5	.174/16.5	.176/16.5	.176/16.5	.176/16.5	.176/16.5
21	21	.040/33.1	.041/33.1	.045/29.9	.051/24.2	.061/16.5	.107/20.3	.073/20.3	.112/17.5	.137/17.0	.155/16.5	.167/16.5	.174/16.5	.176/16.5	.176/16.5	.176/16.5	.176/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

LUNGCHESTED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)
AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES										MODAL WAVE PERIOD IN SECONDS									
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285
5	7	.152/10.5	.164/10.1	.207/9.5	.304/8.7	.527/7.5	.984/5.7	.841/4.8	.950/5.7	.886/5.7	.679/6.3	.541/6.5	.480/6.5	.464/6.5							
9	9	.206/11.2	.218/10.8	.258/10.5	.336/9.5	.490/8.1	.755/6.3	.640/5.2	.776/6.3	.825/6.3	.726/6.8	.634/7.1	.581/7.3	.565/7.3							
11	11	.221/12.1	.230/11.6	.259/11.2	.314/10.1	.412/8.7	.573/6.7	.492/7.9	.607/6.3	.677/6.7	.531/7.5	.459/7.7	.399/7.9	.383/7.9							
13	13	.269/12.6	.275/12.1	.306/11.6	.373/10.8	.438/9.0	.444/8.3	.388/8.7	.478/6.5	.544/6.7	.437/7.7	.356/8.1	.298/8.3	.282/8.3							
15	15	.187/13.4	.192/13.1	.207/12.1	.234/11.2	.279/9.2	.353/8.3	.313/10.5	.383/7.0	.439/7.1	.343/7.9	.256/8.5	.198/8.7	.182/8.7							
17	17	.165/13.4	.169/13.4	.180/13.1	.194/11.6	.232/10.5	.287/8.3	.258/11.6	.313/7.0	.360/7.1	.263/7.9	.176/8.5	.120/8.7	.104/8.7							
19	19	.145/14.3	.147/13.4	.156/13.1	.171/12.1	.196/11.2	.234/8.3	.216/12.6	.260/7.0	.299/7.1	.204/7.9	.119/8.5	.073/8.7	.057/8.7							
21	21	.127/14.3	.129/14.3	.136/13.1	.147/12.6	.167/11.2	.201/6.3	.183/14.0	.220/12.1	.252/7.1	.157/8.1	.065/8.7	.019/9.0	.003/9.0							
10	7	.061/13.7	.069/12.8	.096/12.6	.161/10.8	.318/8.7	.731/6.3	.780/4.8	.964/5.7	.930/6.3	.763/6.4	.650/6.7	.589/6.5	.576/6.5							
11	9	.106/14.3	.114/14.0	.143/13.1	.202/11.6	.317/9.5	.569/6.7	.598/5.2	.794/6.3	.887/6.3	.840/6.8	.778/7.1	.733/7.3	.720/7.3							
13	11	.124/15.0	.131/14.6	.154/13.7	.199/12.1	.279/10.5	.439/7.0	.462/7.9	.623/6.3	.734/6.7	.743/7.3	.724/7.7	.705/7.9	.698/7.9							
15	13	.124/15.3	.129/15.0	.147/14.3	.180/12.8	.236/10.8	.345/7.0	.365/8.7	.491/6.7	.591/7.0	.618/7.7	.619/8.1	.614/8.3	.612/8.3							
17	15	.115/16.1	.120/15.7	.133/14.6	.158/13.4	.194/11.6	.274/7.3	.295/11.2	.393/7.0	.478/7.1	.508/7.7	.518/8.1	.519/8.3	.519/8.5							
19	17	.105/16.1	.108/16.1	.119/15.3	.138/13.7	.169/12.1	.229/12.1	.243/11.6	.321/7.5	.391/7.1	.420/7.9	.432/8.3	.436/8.7	.438/8.7							
21	19	.094/17.0	.097/16.5	.105/15.3	.120/14.3	.151/13.4	.191/13.4	.204/12.6	.267/7.5	.325/7.1	.351/7.9	.363/8.5	.368/8.7	.370/8.7							
15	7	.024/20.3	.027/19.6	.042/17.5	.083/14.3	.194/10.5	.525/7.1	.726/5.2	.003/5.7	.992/6.3	.835/6.4	.721/6.7	.651/6.5	.633/7.0							
9	9	.050/20.3	.055/19.6	.074/17.5	.117/14.3	.209/11.2	.421/7.5	.561/6.5	.832/5.7	.961/6.5	.940/6.8	.891/7.1	.846/7.3	.832/7.3							
11	11	.065/20.3	.070/19.6	.087/17.5	.123/14.3	.192/11.6	.333/7.9	.435/7.5	.652/6.3	.798/6.7	.836/7.3	.835/7.7	.823/7.7	.819/7.9							
13	13	.069/20.3	.074/19.6	.088/17.5	.116/14.3	.168/12.6	.267/8.3	.344/8.7	.513/6.3	.643/7.0	.696/7.5	.716/7.9	.720/8.1	.720/8.3							
15	15	.068/20.3	.072/19.6	.083/17.5	.106/15.3	.145/13.7	.219/11.6	.279/11.2	.411/6.5	.520/7.1	.572/7.7	.598/8.1	.608/8.5	.611/8.5							
17	17	.064/20.3	.067/19.6	.077/17.5	.095/15.7	.125/13.7	.182/12.8	.230/11.6	.335/6.5	.425/7.1	.473/7.9	.499/8.5	.510/8.7	.514/8.7							
19	19	.060/20.3	.062/19.6	.070/17.5	.084/15.7	.109/14.6	.154/14.0	.193/12.6	.278/6.5	.353/7.1	.395/7.9	.419/8.5	.430/8.7	.434/9.0							
21	21	.055/20.3	.057/19.6	.063/17.5	.075/17.5	.096/17.0	.132/15.3	.165/14.0	.235/6.5	.297/7.1	.333/8.1	.355/8.5	.365/8.7	.369/9.0							
20	7	.036/6.7	.031/6.4	.021/24.2	.038/19.0	.116/13.4	.375/7.9	.678/5.7	.056/5.7	.075/6.3	.918/6.4	.784/6.7	.700/7.0	.678/7.0							
9	9	.030/27.3	.030/26.2	.035/23.3	.062/19.0	.135/13.4	.313/8.3	.528/6.5	.586/6.3	.661/6.5	.661/6.8	.612/7.1	.567/7.3	.551/7.3							
11	11	.034/27.3	.034/26.2	.040/23.3	.072/19.0	.130/13.4	.255/8.7	.411/7.5	.695/6.3	.884/6.7	.948/7.3	.958/7.5	.951/7.7	.948/7.7							
13	13	.038/27.3	.040/26.2	.050/23.3	.072/19.0	.118/13.4	.209/11.2	.326/8.7	.545/6.3	.711/6.7	.789/7.3	.822/7.7	.833/7.9	.833/8.1							
15	15	.039/27.3	.042/26.2	.050/23.3	.065/19.0	.105/13.4	.174/12.6	.285/11.2	.436/6.3	.574/6.7	.648/7.5	.686/7.9	.703/8.1	.708/8.3							
17	17	.039/27.3	.041/26.2	.048/23.3	.063/19.0	.093/13.4	.147/13.7	.219/12.6	.355/6.3	.468/6.7	.534/7.5	.571/8.1	.589/8.3	.595/8.5							
19	19	.037/27.3	.039/26.2	.046/23.3	.054/19.0	.082/13.4	.125/14.6	.194/12.6	.294/6.3	.388/6.7	.445/7.5	.478/8.1	.496/8.5	.501/8.5							
21	21	.036/27.3	.037/26.2	.043/23.3	.053/19.0	.073/13.4	.109/16.1	.157/14.0	.247/6.3	.326/6.7	.375/7.5	.405/8.1	.421/8.5	.426/8.7							
25	7	.066/7.0	.060/6.4	.054/6.3	.023/25.1	.063/16.5	.271/8.7	.641/5.7	.120/5.7	.166/6.3	.992/6.8	.841/7.1	.748/7.1	.718/7.1							
9	9	.043/7.1	.039/6.4	.036/31.4	.032/24.2	.082/16.5	.236/8.7	.500/6.5	.555/6.3	.618/6.7	.620/7.3	.658/7.5	.683/7.9	.691/7.9							
11	11	.032/34.9	.030/33.1	.031/29.9	.040/24.2	.084/16.5	.198/8.7	.390/7.5	.749/6.3	.991/6.7	.905/7.3	.955/7.7	.976/7.9	.982/7.9							
13	13	.027/33.1	.027/33.1	.031/29.9	.043/24.2	.080/16.5	.166/12.1	.311/8.5	.587/6.3	.791/7.0	.905/7.5	.955/7.9	.982/8.1	.987/8.1							
15	15	.026/33.1	.026/33.1	.031/29.9	.043/24.2	.074/16.5	.140/13.1	.252/11.2	.468/6.3	.623/7.1	.742/7.5	.796/7.9	.823/8.1	.831/8.1							
17	17	.025/33.1	.026/33.1	.031/29.9	.042/24.2	.061/16.5	.120/15.0	.209/12.6	.380/6.3	.523/7.1	.608/7.5	.662/7.9	.688/8.1	.697/8.3							
19	19	.024/33.1	.026/33.1	.030/29.9	.040/24.2	.051/16.5	.104/16.5	.176/12.6	.314/6.3	.433/7.1	.508/7.5	.553/7.9	.578/8.1	.586/8.3							
21	21	.024/33.1	.025/33.1	.029/29.9	.034/24.2	.056/16.5	.091/18.0	.150/14.0	.263/6.3	.363/7.1	.427/7.5	.467/7.9	.489/8.1	.496/8.3							

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

LONGCRESTED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
HELICOPTER DECK HULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES												
V T		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/.9.2	.068/.9.2	.106/.9.2	.147/.9.2	.203/.8.7	.237/.7.9	.192/.7.9	.202/.7.3	.168/.7.1	.108/.7.3	.061/.7.3	.029/.7.3	.000/.000
	9	.000/.9.2	.070/.9.2	.118/.9.5	.171/.9.2	.227/.8.7	.264/.8.7	.218/.8.7	.235/.8.7	.200/.8.5	.166/.8.5	.109/.8.7	.058/.8.7	.000/.000
	11	.000/.9.2	.067/.9.5	.119/.9.5	.169/.9.5	.213/.9.2	.249/.9.0	.209/.9.0	.225/.9.0	.216/.9.0	.172/.9.0	.118/.9.0	.064/.9.0	.000/.000
	13	.000/.9.2	.068/.15.3	.123/.15.3	.170/.15.0	.208/.14.8	.217/.14.3	.210/.15.7	.203/.15.3	.193/.15.0	.162/.9.0	.113/.9.2	.061/.9.0	.000/.000
	15	.000/.9.2	.069/.17.5	.128/.17.0	.175/.17.0	.208/.16.5	.218/.16.1	.210/.15.7	.203/.15.3	.193/.15.0	.156/.9.0	.109/.9.2	.058/.9.0	.000/.000
	17	.000/.17.5	.070/.17.5	.130/.17.5	.178/.17.0	.210/.18.5	.221/.18.0	.215/.18.0	.209/.17.5	.190/.17.0	.153/.17.0	.107/.17.0	.056/.16.5	.000/.000
	19	.000/.19.6	.070/.19.6	.131/.19.6	.179/.19.0	.211/.19.0	.224/.18.5	.220/.18.0	.212/.18.0	.190/.17.5	.153/.17.0	.107/.17.0	.056/.16.5	.000/.000
10	7	.000/.22.4	.070/.22.4	.132/.22.4	.180/.21.7	.213/.21.7	.228/.20.9	.225/.20.9	.215/.20.3	.191/.20.3	.154/.19.6	.107/.19.6	.056/.19.6	.000/.000
	9	.000/.13.4	.037/.13.1	.075/.11.6	.141/.9.5	.216/.9.0	.248/.8.1	.183/.7.9	.177/.7.0	.137/.7.1	.084/.7.3	.047/.7.3	.021/.7.3	.000/.000
	11	.000/.14.3	.061/.14.0	.115/.13.4	.180/.9.5	.219/.9.2	.245/.8.7	.206/.8.7	.210/.9.0	.186/.8.7	.137/.8.7	.089/.8.7	.047/.9.0	.000/.000
	13	.000/.15.3	.076/.15.0	.139/.15.0	.188/.14.3	.214/.9.5	.228/.8.7	.201/.9.0	.207/.9.2	.192/.9.5	.153/.9.5	.107/.10.1	.059/.9.8	.000/.000
	15	.000/.17.0	.082/.16.5	.150/.16.1	.197/.15.3	.217/.15.3	.221/.15.0	.208/.15.7	.200/.9.5	.184/.9.5	.149/.9.5	.102/.10.1	.059/.10.1	.000/.000
	17	.000/.18.0	.084/.18.0	.154/.17.5	.202/.17.0	.223/.17.5	.225/.16.5	.208/.15.7	.198/.15.3	.178/.15.0	.144/.10.1	.102/.10.1	.056/.10.1	.000/.000
	19	.000/.19.6	.084/.19.6	.154/.19.0	.202/.18.5	.225/.18.0	.229/.18.5	.214/.18.0	.203/.17.5	.176/.17.0	.141/.17.0	.099/.16.5	.053/.10.1	.000/.000
15	7	.000/.21.7	.082/.21.7	.152/.20.9	.202/.20.3	.227/.19.6	.232/.19.0	.220/.18.0	.203/.18.0	.177/.19.6	.141/.19.6	.098/.19.6	.052/.19.0	.000/.000
	9	.000/.24.2	.081/.24.2	.151/.24.2	.201/.23.3	.228/.22.4	.235/.21.7	.225/.20.9	.207/.20.3	.179/.20.3	.142/.19.6	.098/.19.6	.051/.19.6	.000/.000
	11	.000/.7.3	.115/.19.6	.157/.17.5	.177/.14.3	.204/.10.1	.252/.8.3	.174/.7.5	.156/.7.0	.114/.7.1	.068/.7.3	.037/.7.3	.016/.7.3	.000/.000
	13	.000/.20.3	.120/.19.6	.166/.17.5	.184/.14.3	.214/.10.1	.260/.8.7	.196/.8.7	.189/.9.0	.159/.8.7	.113/.8.7	.072/.8.7	.036/.8.7	.000/.000
	15	.000/.20.3	.118/.19.6	.160/.17.5	.184/.16.5	.239/.15.7	.228/.15.3	.198/.14.0	.185/.9.8	.169/.10.5	.134/.10.5	.093/.11.2	.048/.10.1	.000/.000
	17	.000/.20.3	.113/.19.6	.160/.17.5	.184/.16.5	.245/.17.0	.233/.17.0	.206/.15.7	.189/.15.3	.166/.15.0	.131/.10.5	.091/.11.2	.047/.11.2	.000/.000
	19	.000/.20.3	.107/.19.6	.162/.17.5	.184/.16.5	.247/.17.0	.238/.19.0	.213/.18.0	.192/.17.5	.165/.17.0	.129/.17.0	.089/.16.5	.047/.11.2	.000/.000
20	7	.000/.20.3	.103/.19.6	.185/.17.5	.233/.21.7	.247/.20.9	.240/.19.6	.219/.18.0	.195/.20.3	.166/.19.6	.129/.19.6	.089/.19.6	.046/.19.0	.000/.000
	9	.000/.20.3	.099/.19.6	.179/.26.2	.229/.25.1	.246/.23.3	.243/.22.4	.224/.20.9	.199/.20.3	.168/.20.3	.131/.19.6	.090/.19.6	.046/.19.6	.000/.000
	11	.000/.000	.207/.000	.336/.29.9	.341/.19.0	.238/.13.4	.265/.8.5	.171/.7.5	.142/.7.3	.098/.7.1	.058/.7.3	.030/.7.3	.013/.7.3	.000/.000
	13	.000/.000	.221/.28.6	.346/.23.3	.360/.19.0	.269/.13.4	.244/.9.0	.194/.8.7	.175/.9.2	.141/.8.7	.099/.8.7	.061/.8.7	.030/.9.0	.000/.000
	15	.000/.000	.205/.26.2	.323/.23.3	.331/.19.0	.282/.13.4	.234/.13.4	.194/.9.0	.183/.9.6	.157/.10.5	.120/.10.5	.080/.10.1	.042/.10.8	.000/.000
	17	.000/.000	.185/.26.2	.296/.23.3	.331/.19.0	.286/.17.0	.237/.15.7	.198/.14.0	.182/.10.8	.158/.10.8	.124/.11.2	.086/.11.2	.047/.11.2	.000/.000
	19	.000/.000	.167/.26.2	.272/.23.3	.332/.19.0	.285/.18.0	.244/.17.5	.206/.15.7	.183/.15.3	.156/.15.0	.123/.11.6	.086/.11.2	.047/.11.2	.000/.000
25	7	.000/.000	.153/.26.2	.252/.23.3	.295/.19.0	.260/.19.5	.248/.18.0	.212/.18.0	.185/.17.5	.155/.17.0	.121/.17.0	.084/.11.6	.045/.12.6	.000/.000
	9	.000/.000	.141/.26.2	.236/.23.3	.281/.19.0	.276/.21.7	.250/.19.6	.218/.18.0	.188/.20.3	.156/.19.6	.121/.19.6	.083/.19.6	.044/.19.0	.000/.000
	11	.000/.000	.132/.26.2	.224/.23.3	.271/.19.0	.272/.24.2	.253/.22.4	.223/.20.9	.192/.20.3	.159/.20.3	.122/.19.6	.084/.19.6	.043/.19.6	.000/.000
	13	.000/.000	.175/.000	.335/.000	.516/.34.9	.434/.16.5	.261/.9.0	.169/.7.5	.130/.7.3	.086/.7.1	.048/.7.3	.025/.7.5	.011/.7.5	.000/.000
	15	.000/.000	.246/.000	.409/.39.3	.543/.24.2	.413/.16.5	.240/.9.2	.192/.8.7	.164/.9.2	.126/.8.7	.085/.9.0	.052/.9.0	.025/.9.0	.000/.000
	17	.000/.000	.253/.34.9	.404/.29.9	.505/.24.2	.349/.15.5	.240/.15.5	.193/.9.0	.176/.10.1	.145/.10.5	.107/.10.5	.072/.10.5	.037/.11.2	.000/.000
	19	.000/.000	.240/.33.1	.379/.29.9	.459/.24.2	.367/.16.5	.243/.15.3	.197/.14.0	.176/.10.8	.149/.11.6	.115/.11.6	.080/.12.6	.044/.12.6	.000/.000
	7	.000/.000	.223/.33.1	.352/.29.9	.418/.24.2	.349/.16.5	.256/.16.5	.205/.15.7	.177/.15.3	.148/.11.6	.116/.11.6	.082/.12.6	.045/.12.6	.000/.000
	9	.000/.000	.206/.33.1	.327/.29.9	.384/.24.2	.333/.16.5	.260/.18.5	.212/.18.0	.179/.17.5	.147/.17.0	.114/.17.0	.080/.12.6	.043/.12.6	.000/.000
	11	.000/.000	.190/.33.1	.305/.29.9	.354/.24.2	.320/.16.5	.252/.19.6	.217/.18.0	.182/.20.3	.148/.19.6	.114/.19.6	.079/.19.6	.042/.12.6	.000/.000
	13	.000/.000	.176/.33.1	.286/.29.9	.337/.24.2	.311/.16.5	.266/.23.3	.222/.20.9	.186/.20.3	.150/.20.3	.115/.19.6	.079/.19.6	.041/.19.6	.000/.000
	15	.000/.000												
	17	.000/.000												
	19	.000/.000												

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078														
LONGCRESTED														
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
HELICOPTER DECK BULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM RL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.000/9.2	.047/9.2	.074/9.2	.106/9.2	.155/8.5	.205/7.5	.182/7.3	.202/6.5	.160/6.7	.100/6.8	.056/7.1	.026/7.1	.000/7.1
9	7	.000/9.2	.046/9.2	.070/9.2	.115/9.2	.164/8.7	.197/8.5	.179/8.5	.201/8.5	.184/8.3	.135/8.7	.087/8.5	.045/8.7	.000/8.7
11	7	.000/9.2	.040/9.2	.070/9.2	.103/9.2	.142/8.7	.165/8.7	.155/9.0	.175/9.0	.167/8.7	.131/8.7	.089/8.7	.048/9.0	.000/9.0
13	7	.000/9.2	.036/9.2	.066/9.2	.094/9.2	.122/9.0	.148/9.0	.133/9.0	.148/9.0	.143/9.0	.114/9.0	.079/9.0	.043/9.0	.000/9.0
15	7	.000/9.2	.032/9.2	.054/9.2	.082/9.2	.108/9.0	.131/8.7	.117/9.0	.127/9.0	.122/9.0	.099/9.0	.069/9.0	.037/9.0	.000/9.0
17	7	.000/9.2	.024/9.2	.044/9.2	.077/9.2	.104/9.0	.128/8.5	.106/8.7	.112/9.0	.107/9.0	.086/9.0	.061/9.0	.033/9.0	.000/9.0
19	7	.000/9.2	.027/9.2	.050/9.2	.077/9.2	.104/9.0	.128/8.5	.106/8.7	.112/9.0	.107/9.0	.086/9.0	.061/9.0	.033/9.0	.000/9.0
21	7	.000/9.2	.025/9.2	.047/9.2	.077/9.2	.104/9.0	.128/8.5	.106/8.7	.112/9.0	.107/9.0	.086/9.0	.061/9.0	.033/9.0	.000/9.0
10	7	.000/13.4	.017/13.1	.036/11.6	.114/9.5	.152/9.0	.205/7.9	.175/7.3	.188/6.5	.145/6.7	.088/6.8	.048/7.1	.022/7.1	.000/7.1
9	7	.000/13.4	.027/14.0	.054/13.1	.103/9.5	.143/9.2	.197/8.5	.170/8.5	.188/8.5	.168/8.1	.122/8.1	.079/8.1	.040/8.1	.000/8.1
11	7	.000/15.0	.031/14.6	.061/14.6	.103/9.5	.125/9.2	.156/8.7	.148/8.7	.165/9.0	.157/9.2	.124/9.2	.086/9.2	.047/9.2	.000/9.2
13	7	.000/16.1	.032/15.7	.061/15.3	.090/14.5	.112/9.2	.133/8.7	.128/9.0	.141/9.2	.136/9.2	.111/9.5	.079/10.1	.044/9.8	.000/10.1
15	7	.000/17.0	.031/17.0	.059/16.1	.084/15.7	.102/15.7	.117/15.0	.114/14.0	.123/9.2	.118/9.5	.097/9.5	.070/10.1	.039/9.8	.000/10.1
17	7	.000/18.0	.029/18.0	.055/17.5	.078/17.0	.094/17.5	.106/16.5	.104/15.7	.109/15.3	.103/9.5	.085/9.5	.061/10.1	.034/10.1	.000/10.1
19	7	.000/18.6	.027/19.6	.051/18.0	.072/18.5	.086/18.5	.096/18.5	.095/18.0	.098/17.5	.092/17.0	.076/9.5	.055/10.1	.030/10.1	.000/10.1
21	7	.000/19.6	.025/19.6	.048/19.6	.067/20.3	.080/19.6	.089/19.0	.088/18.0	.089/17.5	.083/17.5	.068/17.0	.049/10.1	.027/10.1	.000/10.1
15	7	.000/20.3	.020/19.6	.045/17.5	.072/14.3	.121/10.1	.198/8.1	.167/7.0	.175/6.5	.131/6.7	.079/6.8	.043/7.1	.019/7.1	.000/7.1
9	7	.000/20.3	.032/19.6	.065/17.5	.094/14.3	.117/10.1	.174/8.5	.162/8.3	.175/8.3	.153/7.7	.110/8.1	.070/8.1	.035/8.1	.000/8.1
11	7	.000/20.3	.036/19.6	.071/17.5	.095/14.3	.111/10.1	.146/8.7	.142/8.7	.157/9.2	.146/9.2	.115/9.2	.079/9.2	.042/9.2	.000/9.2
13	7	.000/20.3	.034/19.6	.065/17.5	.089/14.3	.106/14.6	.127/8.7	.124/9.0	.136/9.5	.130/9.8	.105/10.1	.074/10.1	.040/10.1	.000/10.1
15	7	.000/20.3	.034/19.6	.065/17.5	.089/14.3	.100/15.7	.114/15.3	.112/14.0	.119/9.8	.113/9.8	.093/10.5	.067/10.1	.036/11.2	.000/10.5
17	7	.000/20.3	.031/19.6	.060/17.5	.082/14.3	.093/17.0	.104/17.0	.102/15.7	.106/15.3	.100/10.5	.082/10.5	.059/10.5	.032/11.2	.000/10.5
19	7	.000/20.3	.029/19.6	.055/17.5	.075/14.3	.086/14.6	.095/14.6	.094/15.0	.096/17.5	.089/17.0	.073/10.5	.053/11.2	.028/11.2	.000/10.5
21	7	.000/20.3	.027/19.6	.051/17.5	.070/20.3	.080/20.3	.088/19.0	.087/18.0	.087/17.5	.081/17.5	.066/19.6	.047/11.2	.025/11.2	.000/10.5
20	7	.000/26.2	.022/26.2	.051/26.2	.085/19.0	.107/13.4	.194/8.5	.165/7.0	.166/6.5	.122/6.5	.073/6.8	.039/7.1	.017/7.1	.000/7.1
9	7	.000/26.2	.034/26.2	.069/23.3	.107/19.0	.119/13.4	.165/8.7	.159/8.3	.169/8.3	.144/8.1	.104/8.3	.065/8.5	.032/8.3	.000/8.3
11	7	.000/27.3	.037/26.2	.073/23.3	.109/19.0	.119/13.4	.140/9.0	.140/8.7	.153/9.5	.140/9.5	.110/9.2	.075/9.2	.039/9.2	.000/9.2
13	7	.000/27.3	.037/26.2	.071/23.3	.103/19.0	.113/13.4	.124/14.6	.124/9.0	.134/9.8	.126/10.5	.103/10.5	.073/11.2	.039/11.2	.000/10.5
15	7	.000/27.3	.035/26.2	.067/23.3	.095/19.0	.106/13.4	.112/15.7	.111/14.0	.118/10.1	.111/10.5	.092/11.2	.066/11.2	.036/11.2	.000/10.5
17	7	.000/27.3	.033/26.2	.062/23.3	.087/19.0	.099/13.4	.104/15.7	.102/15.7	.105/15.3	.100/10.5	.082/11.2	.059/11.2	.033/11.2	.000/10.5
19	7	.000/27.3	.031/26.2	.058/23.3	.080/19.0	.090/13.4	.098/14.6	.094/15.0	.095/15.0	.088/17.0	.073/11.2	.053/11.2	.029/11.2	.000/10.5
21	7	.000/27.3	.028/26.2	.053/23.3	.074/19.0	.084/21.7	.088/19.6	.087/18.0	.086/18.0	.079/19.6	.066/19.6	.047/11.2	.026/11.2	.000/10.5
25	7	.000/33.1	.019/7.5	.034/44.9	.071/28.6	.129/16.5	.176/9.0	.163/8.3	.159/8.3	.114/6.7	.066/6.8	.036/7.1	.016/7.1	.000/7.1
9	7	.000/33.1	.023/44.9	.051/33.1	.105/24.2	.139/16.5	.164/9.0	.157/8.3	.153/8.3	.137/8.3	.096/8.3	.061/8.3	.029/8.3	.000/8.3
11	7	.000/33.1	.020/33.1	.046/29.9	.097/24.2	.115/16.5	.130/9.0	.139/8.7	.150/9.8	.135/9.5	.104/9.2	.071/9.2	.037/9.2	.000/9.2
13	7	.000/33.1	.019/33.1	.043/29.9	.097/24.2	.115/16.5	.119/15.0	.123/9.0	.133/10.1	.123/10.5	.099/10.5	.071/11.2	.039/12.0	.000/10.5
15	7	.000/33.1	.018/33.1	.040/29.9	.094/24.2	.106/16.5	.110/16.5	.111/14.0	.117/10.1	.109/10.8	.090/11.6	.066/11.6	.036/12.0	.000/10.5
17	7	.000/33.1	.017/33.1	.037/29.9	.093/24.2	.106/16.5	.102/16.5	.101/15.7	.104/15.3	.097/11.6	.080/11.6	.059/12.6	.033/12.6	.000/10.5
19	7	.000/33.1	.016/33.1	.036/29.9	.092/24.2	.106/16.5	.102/16.5	.101/15.7	.104/15.3	.097/11.6	.080/11.6	.059/12.6	.033/12.6	.000/10.5
21	7	.000/33.1	.015/33.1	.035/29.9	.091/24.2	.106/16.5	.102/16.5	.101/15.7	.104/15.3	.097/11.6	.080/11.6	.059/12.6	.033/12.6	.000/10.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 107A

LONGCRESTED
RMS LAT ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE

(ACC. X 100)
HELICOPTER DECK RULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL

V	T	SHIP HEADING ANGLE IN DEGREES											
		0	15	30	45	60	75	90	105	120	135	150	
5	7	.000/9.2	.103/9.2	.165/9.2	.241/9.0	.378/8.3	.578/7.0	.597/6.7	.679/5.7	.502/6.3	.301/6.4	.169/6.7	.079/7.0
	9	.000/9.2	.096/9.2	.163/9.2	.248/9.2	.377/8.7	.512/8.3	.505/8.3	.591/7.9	.513/7.1	.361/7.7	.227/8.1	.116/8.7
	11	.000/9.2	.078/9.2	.137/9.2	.210/9.2	.311/8.7	.405/8.3	.402/8.7	.474/8.5	.436/8.5	.328/8.5	.218/8.7	.116/9.0
	13	.000/9.2	.064/9.2	.115/9.5	.174/9.2	.250/8.7	.319/8.7	.319/8.7	.374/8.7	.352/8.7	.273/8.7	.185/8.7	.100/9.0
	15	.000/9.2	.054/9.2	.097/9.5	.145/9.2	.205/8.7	.257/8.7	.258/8.7	.300/8.7	.285/8.7	.224/8.7	.154/8.7	.083/9.0
	17	.000/9.2	.046/9.2	.083/9.5	.123/9.2	.171/8.7	.212/8.7	.213/8.7	.246/8.7	.234/8.7	.185/8.7	.128/8.7	.089/9.0
	19	.000/9.2	.039/9.2	.072/9.5	.106/9.2	.145/8.7	.177/8.7	.179/9.0	.205/8.7	.195/8.7	.155/9.0	.108/8.7	.058/9.0
10	7	.000/9.2	.034/9.2	.063/9.5	.092/9.2	.124/8.7	.151/8.7	.153/9.0	.173/8.7	.165/8.7	.132/9.0	.092/8.7	.050/9.0
	9	.000/13.4	.024/13.1	.061/11.6	.223/9.5	.335/9.0	.546/7.3	.578/6.5	.676/5.7	.503/6.3	.300/6.4	.167/6.7	.076/7.0
	11	.000/14.0	.037/13.7	.081/12.8	.189/9.5	.301/9.2	.466/8.1	.483/7.9	.584/7.0	.510/7.1	.362/7.3	.229/7.5	.115/7.0
	13	.000/14.6	.041/14.3	.085/13.7	.160/9.5	.245/9.2	.365/8.3	.384/8.5	.469/8.5	.438/8.3	.336/8.3	.229/8.7	.122/9.0
	15	.000/15.3	.040/15.0	.081/14.3	.138/9.5	.201/9.2	.288/8.5	.305/8.7	.372/9.0	.357/9.0	.285/9.0	.201/9.2	.110/9.0
	17	.000/16.1	.037/15.7	.074/15.3	.119/9.5	.168/9.2	.233/8.5	.248/8.7	.299/9.0	.290/9.2	.236/9.2	.169/9.2	.074/9.0
	19	.000/16.1	.033/16.1	.066/16.1	.104/9.5	.143/9.2	.193/8.5	.206/8.7	.245/9.2	.239/9.2	.196/9.2	.141/9.2	.078/9.0
15	7	.000/17.0	.029/17.0	.058/16.5	.091/16.5	.123/9.2	.163/8.5	.173/8.7	.205/9.2	.199/9.2	.164/9.2	.119/10.1	.066/9.0
	9	.000/17.5	.026/18.0	.052/17.5	.080/17.0	.107/9.2	.140/8.7	.149/8.7	.173/9.2	.169/9.2	.139/9.2	.101/10.1	.056/9.0
	11	.000/20.3	.020/19.6	.048/17.5	.098/14.3	.226/10.1	.494/7.9	.556/6.5	.659/5.7	.498/6.3	.300/6.4	.166/6.7	.075/7.0
	13	.000/20.3	.032/19.6	.072/17.5	.125/14.3	.203/10.1	.409/8.3	.461/7.9	.575/7.0	.505/7.1	.361/7.7	.229/7.9	.113/7.0
	15	.000/20.3	.036/19.6	.078/17.5	.125/14.3	.178/10.1	.320/8.5	.367/8.3	.463/8.5	.436/7.7	.339/8.1	.231/8.3	.120/8.5
	17	.000/20.3	.035/19.6	.074/17.5	.116/14.3	.156/10.1	.255/8.5	.293/8.5	.364/9.0	.359/9.0	.290/8.7	.204/9.2	.110/9.0
	19	.000/20.3	.032/19.6	.067/17.5	.104/14.3	.137/14.6	.209/8.5	.239/8.5	.298/9.2	.293/9.2	.242/9.5	.173/10.1	.094/10.0
20	7	.000/20.3	.029/19.6	.060/17.5	.092/14.3	.120/15.7	.175/8.5	.199/8.7	.245/9.2	.242/9.5	.202/9.5	.146/10.1	.094/10.0
	9	.000/20.3	.026/19.6	.054/17.5	.081/14.3	.105/17.0	.149/8.5	.169/8.7	.204/9.2	.202/9.5	.169/10.1	.123/10.1	.087/10.0
	11	.000/20.3	.023/19.6	.048/17.5	.072/14.3	.093/17.0	.128/17.0	.145/15.7	.173/9.2	.172/9.5	.144/10.1	.105/10.1	.057/10.0
	13	.000/28.6	.022/26.2	.053/23.3	.107/19.0	.167/13.4	.362/8.5	.454/7.9	.579/7.0	.510/7.1	.370/7.3	.235/7.7	.115/7.0
	15	.000/27.3	.026/26.2	.058/23.3	.110/19.0	.159/13.4	.284/8.7	.363/8.3	.469/8.5	.444/8.1	.350/8.3	.238/8.7	.123/8.7
	17	.000/27.3	.025/26.2	.054/23.3	.093/19.0	.144/13.4	.190/8.7	.290/8.5	.375/9.2	.368/8.3	.303/8.7	.214/9.0	.114/9.0
	19	.000/27.3	.024/26.2	.050/23.3	.083/19.0	.113/13.4	.160/8.7	.237/8.7	.303/9.5	.302/9.5	.254/9.5	.183/10.1	.100/10.0
25	7	.000/27.3	.022/26.2	.045/23.3	.074/19.0	.100/13.4	.138/13.4	.197/8.7	.249/9.5	.250/9.8	.212/10.1	.155/11.2	.095/11.0
	9	.000/27.3	.022/26.2	.045/23.3	.066/19.0	.088/13.4	.119/17.5	.144/15.7	.177/9.8	.209/10.5	.179/10.5	.131/11.2	.072/11.0
	11	.000/7.7	.030/7.5	.043/6.8	.062/27.3	.138/16.5	.370/9.0	.533/6.5	.676/5.7	.502/6.3	.304/6.8	.172/6.7	.077/7.0
	13	.000/7.7	.022/7.5	.037/31.4	.079/24.2	.156/16.5	.295/9.0	.448/7.9	.584/7.0	.515/6.7	.371/7.3	.238/7.5	.116/7.0
	15	.000/33.1	.020/33.1	.042/29.9	.085/24.2	.137/16.5	.196/9.0	.287/8.5	.381/8.5	.376/8.5	.308/9.0	.221/9.2	.119/9.0
	17	.000/33.1	.020/33.1	.043/29.9	.079/24.2	.123/16.5	.167/9.0	.235/8.7	.309/9.8	.310/9.8	.260/9.2	.192/10.1	.105/10.0
	19	.000/33.1	.020/33.1	.041/29.9	.073/24.2	.109/16.5	.144/9.0	.196/8.7	.254/9.8	.219/10.5	.197/10.5	.163/11.2	.090/12.0
	21	.000/33.1	.019/33.1	.039/29.9	.066/24.2	.096/16.5	.125/16.5	.156/8.7	.212/10.1	.215/10.5	.184/11.2	.138/11.2	.077/12.0
	21	.000/33.1	.019/33.1	.036/29.9	.060/24.2	.086/16.5	.109/16.0	.143/15.7	.180/10.1	.182/10.5	.157/11.2	.118/11.2	.066/12.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

LUNGCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
HELICOPTER DECK BULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
S	7	064/10.8	067/10.5	079/10.1	103/9.2	145/8.5	205/7.5	228/7.0	194/7.0	144/7.0	103/6.8	087/7.1	077/7.3	074/7.3
	9	121/12.1	125/12.1	138/11.6	161/10.8	192/10.1	228/9.5	242/9.0	225/8.5	195/8.5	169/8.5	149/8.5	138/8.7	134/8.5
	11	168/13.4	171/13.4	181/13.1	198/12.6	218/12.1	239/11.6	247/11.2	235/10.8	221/10.5	204/10.5	190/10.1	182/10.1	179/10.1
	13	198/14.6	200/14.6	207/14.3	219/14.0	232/13.4	245/13.1	250/12.6	245/12.1	234/12.1	225/11.6	215/11.6	205/11.6	206/12.1
	15	216/17.5	219/17.5	223/17.0	231/17.0	240/16.5	248/16.1	251/15.7	244/15.0	234/14.5	225/14.3	215/14.3	205/14.3	223/14.0
	17	227/19.6	228/19.6	232/19.0	237/19.0	243/18.5	249/18.0	251/18.0	249/17.5	245/17.0	241/16.5	236/16.5	234/16.1	231/16.1
	19	234/19.6	236/19.6	237/19.6	241/19.0	245/19.0	249/18.5	251/18.0	250/17.5	247/17.5	244/17.0	241/17.0	239/16.5	238/16.5
21	239/22.4	240/22.4	242/22.4	244/21.7	248/21.7	250/20.9	252/20.9	251/20.3	249/20.3	247/19.6	245/19.6	244/19.6	243/19.6	
10	7	054/13.4	057/12.8	068/12.5	089/11.2	126/9.5	184/8.1	220/7.0	195/6.7	140/7.0	099/7.3	076/7.3	066/7.3	064/7.3
	9	108/15.0	112/14.6	125/13.7	146/12.6	175/11.2	211/10.1	235/9.0	223/8.7	169/8.5	159/8.5	138/8.7	126/8.7	122/8.7
	11	153/16.1	157/15.7	167/15.3	183/14.3	204/13.4	226/12.1	240/11.2	234/10.8	214/10.5	195/10.5	180/10.1	170/10.1	167/10.1
	13	184/17.0	186/17.0	194/16.5	205/15.3	220/14.6	234/13.7	243/12.6	240/12.1	228/12.1	215/11.6	205/11.6	199/11.6	196/11.6
	15	204/19.5	205/18.5	211/18.0	219/17.0	229/16.1	239/16.5	245/15.7	243/15.3	236/15.0	228/14.6	221/14.3	216/14.3	215/14.3
	17	216/20.3	217/20.3	221/19.6	227/18.5	234/18.0	241/18.0	245/18.0	244/17.5	239/17.0	234/16.5	229/16.5	226/16.5	225/16.1
	19	224/22.4	225/21.7	228/21.7	232/20.9	237/19.6	242/19.0	245/18.0	245/17.5	241/17.5	238/17.0	235/17.0	233/16.5	232/16.5
21	231/25.1	231/24.2	234/24.2	237/23.3	240/22.4	244/21.7	246/20.9	246/20.3	244/20.3	241/19.6	239/19.6	238/19.6	237/19.6	
15	7	048/20.3	050/19.6	059/17.5	080/14.3	115/11.2	167/8.7	213/7.0	199/6.3	147/6.7	104/6.8	077/7.1	064/7.1	060/7.1
	9	098/20.3	101/19.6	112/17.5	133/14.3	163/12.6	195/10.8	228/9.0	223/8.5	194/8.5	161/8.7	137/8.7	123/8.7	119/8.7
	11	141/20.3	144/19.6	154/17.5	170/15.7	192/14.0	215/12.8	234/11.2	233/10.8	215/10.5	194/10.5	177/10.1	166/10.1	162/10.1
	13	171/20.3	174/19.6	181/19.0	193/17.5	209/15.7	223/14.0	237/12.6	236/12.6	226/13.1	212/12.8	200/12.6	193/12.6	190/12.6
	15	192/20.3	194/20.9	199/20.3	208/19.0	219/17.0	231/17.0	239/15.7	240/15.3	233/15.0	224/14.6	216/14.3	210/14.3	209/14.3
	17	205/23.3	207/22.4	211/21.7	217/20.3	225/19.0	233/19.0	239/18.0	240/17.5	236/17.0	230/16.5	224/16.5	221/16.5	219/16.1
	19	215/25.1	216/24.2	219/23.3	223/22.4	229/20.9	235/19.6	240/18.0	241/17.5	238/17.5	234/17.0	230/17.0	227/16.5	226/16.5
21	223/27.3	226/26.2	226/26.2	229/25.1	234/23.3	238/22.4	241/20.9	242/20.3	240/20.3	237/19.6	235/19.6	233/19.6	232/19.6	
20	7	046/33.1	048/29.9	054/24.2	071/19.0	105/13.4	154/9.2	208/7.0	203/6.5	157/6.7	114/6.8	086/7.1	071/7.3	066/7.3
	9	091/27.3	094/26.2	102/23.3	120/19.0	151/13.4	187/11.2	223/9.0	223/8.5	205/8.3	175/7.7	151/7.9	137/7.9	132/7.9
	11	132/27.3	134/26.2	142/23.3	157/19.0	186/15.3	205/13.4	229/11.2	235/10.8	222/10.5	203/10.5	185/10.1	175/10.1	172/10.1
	13	161/27.3	163/26.2	169/23.3	180/19.0	198/17.0	216/14.6	232/12.6	237/12.6	229/13.1	217/12.8	205/12.6	197/12.6	195/12.6
	15	187/27.3	184/26.2	189/23.3	197/19.0	210/18.5	223/17.5	234/15.7	238/15.3	233/15.0	225/14.6	217/14.3	212/14.3	210/14.3
	17	197/27.3	198/26.2	201/23.3	207/22.4	216/20.3	226/19.6	234/18.0	237/17.5	235/17.0	229/16.5	224/16.5	220/16.5	219/16.5
	19	207/27.3	208/26.2	210/23.3	215/24.2	222/22.4	229/20.3	235/18.0	238/17.5	236/17.5	232/17.0	228/17.0	226/16.5	225/16.5
21	215/27.3	216/26.2	218/28.6	222/26.2	227/25.1	232/22.4	237/20.9	239/20.3	238/20.3	235/19.6	233/19.6	231/19.6	230/19.6	
25	7	043/33.1	047/29.9	052/24.2	064/20.3	094/15.5	145/10.1	204/7.0	208/6.5	164/7.0	120/7.3	090/7.5	074/7.7	069/7.7
	9	085/41.9	088/39.3	095/31.6	109/24.2	139/18.5	174/11.6	219/9.0	236/8.3	219/7.7	192/7.7	169/8.1	155/8.5	150/8.3
	11	123/34.9	125/33.1	132/29.9	144/24.2	167/18.5	197/13.4	225/11.2	239/10.8	235/10.5	213/10.1	204/8.5	194/8.5	191/8.7
	13	151/33.1	153/33.1	159/29.9	169/24.2	186/18.5	215/16.5	230/15.7	236/15.3	236/15.0	231/15.0	228/14.3	221/14.3	219/14.3
	15	173/33.1	174/33.1	179/29.9	186/24.2	199/18.5	219/16.5	230/15.7	236/15.3	237/15.0	233/15.0	229/14.3	226/14.3	224/14.3
	17	187/33.1	188/33.1	192/29.9	198/24.2	207/21.7	219/18.5	230/18.0	236/17.5	236/17.0	233/16.5	229/16.5	226/16.5	224/16.5
	19	198/33.1	199/33.1	202/29.9	206/24.2	214/23.3	227/20.3	231/18.0	236/17.5	236/17.0	233/17.0	229/16.5	226/16.5	224/16.5
21	207/33.1	209/33.1	210/29.9	214/28.6	219/26.2	226/23.3	232/20.9	236/20.3	237/20.3	235/19.6	234/19.6	232/19.6	231/19.6	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

LONGCRESTED
HMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
HELICOPTER DECK BULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL

VT	0	SHIP HEADING ANGLE IN DEGREES										180	
		15	30	45	60	75	90	105	120	135	150		165
5	7	.041/10.5	.053/10.1	.073/9.2	.115/8.1	.188/7.0	.234/6.3	.197/6.3	.140/6.5	.104/6.8	.086/7.1	.077/7.0	.075/7.0
	9	.066/11.6	.079/11.2	.094/10.5	.130/9.5	.178/8.3	.208/7.9	.192/7.5	.161/7.7	.136/7.9	.120/8.1	.111/8.1	.108/8.3
	11	.082/13.1	.093/12.1	.107/11.6	.136/11.0	.161/10.5	.191/9.5	.175/9.2	.158/9.2	.143/9.0	.132/9.2	.126/9.0	.123/9.0
	13	.088/14.3	.097/14.0	.107/12.8	.129/12.6	.147/12.1	.159/11.6	.156/11.2	.147/10.8	.138/10.5	.132/11.2	.127/11.2	.126/10.8
	15	.089/15.7	.097/15.3	.103/15.0	.115/13.1	.130/13.1	.140/12.6	.140/12.6	.135/13.1	.130/12.8	.126/12.6	.123/12.6	.122/12.6
	17	.085/17.5	.091/17.0	.091/17.0	.104/16.5	.117/16.1	.125/15.7	.126/15.0	.123/15.0	.120/14.6	.118/14.3	.116/14.0	.116/14.0
	19	.083/19.6	.084/19.6	.091/19.0	.104/18.0	.117/17.5	.125/17.0	.126/17.0	.123/17.0	.120/16.6	.118/16.3	.116/16.0	.116/16.0
10	7	.024/13.4	.034/12.6	.051/11.2	.085/9.5	.155/7.7	.224/6.3	.209/5.7	.149/6.3	.106/6.8	.085/7.1	.077/7.1	.075/7.1
	9	.046/14.6	.057/13.4	.071/12.1	.103/10.8	.152/9.2	.201/7.9	.202/7.5	.170/7.9	.142/8.1	.123/8.1	.114/8.3	.111/8.3
	11	.061/15.3	.071/14.3	.085/13.4	.107/12.1	.147/10.8	.175/9.5	.181/9.2	.166/9.2	.150/9.2	.138/9.2	.132/9.2	.130/9.2
	13	.068/17.0	.077/16.5	.088/16.5	.100/15.7	.118/13.7	.136/12.6	.143/12.6	.140/13.1	.136/12.8	.133/12.6	.130/12.6	.130/12.6
	15	.070/18.0	.077/17.5	.086/16.5	.100/15.7	.117/15.3	.136/12.6	.143/12.6	.140/13.1	.136/12.8	.133/12.6	.130/12.6	.130/12.6
	17	.070/19.6	.076/19.0	.083/18.5	.093/17.5	.107/16.5	.122/15.7	.128/15.0	.124/14.6	.126/14.6	.124/14.3	.123/14.3	.123/14.0
	19	.068/21.7	.073/20.9	.079/18.5	.087/18.0	.099/17.0	.110/15.7	.116/15.3	.117/15.0	.116/14.6	.115/14.3	.115/14.3	.115/14.3
15	7	.014/20.3	.021/17.5	.035/14.3	.064/10.8	.128/8.3	.216/6.3	.223/6.3	.171/6.3	.122/6.4	.094/6.7	.081/7.0	.077/7.0
	9	.030/20.3	.040/17.5	.055/14.3	.083/12.1	.131/9.8	.195/7.9	.215/7.5	.182/7.1	.161/7.7	.138/8.1	.126/8.1	.121/8.3
	11	.043/20.3	.053/17.5	.067/15.3	.090/13.4	.125/11.6	.170/9.5	.191/9.2	.182/9.2	.166/9.2	.152/9.2	.144/9.2	.141/9.2
	13	.051/20.3	.059/17.0	.071/15.3	.099/11.6	.116/12.8	.150/11.6	.167/11.2	.156/10.8	.158/10.5	.150/10.5	.146/10.8	.144/10.8
	15	.055/20.3	.062/17.0	.072/15.3	.087/17.0	.107/14.3	.133/12.6	.148/13.4	.150/13.1	.146/12.8	.143/12.6	.140/12.6	.139/12.6
	17	.056/20.3	.062/20.9	.070/20.3	.082/18.0	.094/17.0	.119/15.7	.132/15.0	.135/14.6	.134/14.6	.133/14.3	.132/14.3	.131/14.3
	19	.056/23.3	.061/21.7	.068/20.3	.078/19.0	.091/17.5	.108/15.7	.119/15.3	.123/15.0	.123/14.6	.123/14.6	.123/14.3	.122/14.3
20	7	.007/31.4	.012/24.2	.022/19.0	.048/13.4	.108/9.0	.209/6.3	.237/6.3	.193/6.5	.145/6.8	.112/7.1	.094/7.1	.089/7.1
	9	.019/27.3	.026/23.3	.039/19.0	.066/13.4	.114/10.8	.190/7.9	.230/6.5	.219/6.7	.193/7.3	.170/7.5	.155/7.7	.150/7.7
	11	.029/27.3	.034/23.3	.050/19.0	.074/15.0	.111/12.1	.166/9.5	.202/9.0	.205/7.1	.193/7.5	.181/7.9	.172/7.9	.169/8.1
	13	.037/27.3	.045/23.3	.058/19.0	.076/15.0	.105/13.4	.146/11.6	.176/10.8	.183/10.5	.180/10.5	.173/10.5	.169/10.8	.167/10.8
	15	.042/27.3	.048/23.3	.054/19.0	.075/16.0	.098/15.7	.130/12.6	.154/13.4	.163/13.1	.163/12.6	.161/12.6	.159/12.6	.158/12.6
	17	.045/27.3	.050/23.3	.054/19.0	.072/19.0	.091/17.5	.116/15.7	.136/15.0	.145/14.6	.148/14.6	.147/14.3	.147/14.3	.147/14.3
	19	.045/27.3	.047/26.2	.051/23.3	.058/22.4	.085/18.0	.105/15.7	.122/15.3	.131/15.0	.134/14.6	.135/14.6	.135/14.6	.135/14.6
25	7	.011/8.5	.012/39.3	.013/25.1	.034/16.5	.091/9.5	.204/6.3	.251/6.3	.212/6.7	.161/6.8	.124/7.3	.104/7.3	.098/7.3
	9	.012/41.9	.017/29.9	.021/24.2	.051/16.5	.100/11.2	.186/7.9	.245/6.5	.248/7.1	.227/7.5	.205/7.7	.190/7.9	.185/7.9
	11	.019/33.1	.026/29.9	.037/24.2	.060/16.5	.099/12.8	.163/9.5	.215/8.5	.230/7.1	.227/7.7	.218/8.1	.211/8.3	.208/8.3
	13	.025/33.1	.033/29.9	.044/24.2	.063/16.5	.095/14.0	.143/11.6	.185/10.8	.203/9.8	.207/7.9	.205/8.1	.203/8.3	.202/8.3
	15	.031/33.1	.038/29.9	.047/24.2	.064/16.5	.090/16.1	.127/12.6	.161/13.4	.179/12.1	.185/11.6	.186/11.2	.186/11.2	.186/11.2
	17	.036/33.1	.040/29.9	.049/24.2	.063/16.5	.084/18.0	.114/15.7	.142/15.0	.153/14.6	.169/14.6	.168/14.3	.169/14.3	.169/14.3
	19	.036/33.1	.042/29.9	.049/24.2	.061/21.7	.097/20.3	.103/15.7	.126/15.3	.140/15.0	.148/14.6	.151/14.6	.153/16.1	.153/16.1
	21	.037/33.1	.042/29.9	.049/24.2	.059/23.3	.074/20.3	.094/18.0	.114/17.5	.126/17.0	.133/17.0	.137/16.5	.139/16.5	.140/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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DE 1078														
LONGCRESTED														
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OE														
(ACC. X 100)														
HELICOPTER DECK HULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL														
V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.086/10.5	.092/10.1	.116/ 9.5	.170/ 8.7	.295/ 7.9	.577/ 6.4	.808/ 5.2	.666/ 5.7	.446/ 6.3	.336/ 6.4	.289/ 6.7	.268/ 6.8	.261/ 6.8
9	9	.117/11.2	.124/11.2	.142/10.8	.196/ 9.8	.293/ 9.7	.478/ 7.3	.632/ 5.7	.570/ 6.5	.447/ 7.1	.371/ 7.3	.328/ 7.5	.304/ 7.7	.297/ 7.7
11	11	.131/12.1	.137/12.1	.156/11.6	.194/10.8	.262/ 9.8	.385/ 8.3	.491/ 7.3	.462/ 7.5	.392/ 7.7	.345/ 8.1	.316/ 8.3	.300/ 8.3	.294/ 8.5
13	13	.130/13.4	.134/13.1	.149/12.8	.178/11.6	.227/11.2	.313/ 9.5	.388/ 8.3	.374/ 8.3	.331/ 8.5	.303/ 9.0	.284/ 9.0	.273/ 9.0	.270/ 9.0
15	15	.122/12.3	.125/12.3	.137/13.1	.158/12.8	.195/11.2	.258/11.2	.314/10.5	.306/ 9.2	.279/ 9.2	.249/10.1	.249/10.1	.239/10.1	.239/10.1
17	17	.111/15.7	.114/14.6	.123/14.3	.140/14.0	.164/13.4	.215/12.1	.258/11.6	.255/11.2	.236/10.8	.224/11.2	.216/11.2	.211/11.2	.209/11.2
19	19	.101/15.7	.103/15.7	.110/15.7	.123/15.0	.145/14.6	.182/13.1	.216/12.6	.215/12.1	.201/11.6	.193/11.6	.187/11.6	.184/12.6	.183/12.1
21	21	.091/17.5	.093/17.5	.104/17.0	.109/15.3	.127/15.0	.156/14.3	.184/13.0	.183/13.4	.173/13.1	.167/12.8	.164/12.6	.161/12.6	.160/12.6
10	7	.034/13.4	.038/12.8	.053/12.5	.090/10.8	.181/ 9.2	.430/ 7.0	.770/ 5.7	.766/ 5.7	.523/ 5.7	.378/ 6.4	.331/ 6.7	.317/ 6.7	.317/ 5.2
9	9	.061/15.6	.066/14.3	.083/13.4	.121/12.1	.197/10.5	.370/ 8.1	.606/ 5.3	.635/ 5.7	.521/ 6.7	.428/ 7.3	.382/ 7.7	.361/ 7.7	.357/ 7.9
11	11	.076/15.3	.080/15.0	.096/14.3	.128/12.8	.186/11.2	.307/ 9.2	.472/ 7.0	.410/ 7.0	.452/ 7.7	.400/ 8.3	.371/ 8.5	.357/ 8.5	.353/ 8.5
13	13	.080/16.1	.084/15.7	.097/15.3	.122/13.7	.166/11.2	.294/10.8	.374/ 8.3	.317/ 8.5	.379/ 9.2	.350/ 9.0	.334/ 9.2	.326/ 9.2	.324/ 9.2
15	15	.079/17.0	.082/17.0	.093/16.1	.113/14.6	.148/13.4	.213/12.1	.303/10.5	.334/ 9.0	.317/ 9.2	.300/ 9.5	.292/10.1	.287/10.1	.286/10.1
17	17	.074/18.0	.077/18.0	.086/17.5	.102/15.7	.130/14.3	.180/13.4	.250/11.6	.276/11.2	.227/11.6	.257/10.5	.252/11.2	.250/10.8	.250/10.8
19	19	.069/18.5	.071/18.5	.079/18.0	.092/17.0	.114/15.7	.154/13.7	.209/12.6	.232/12.1	.227/12.1	.221/11.6	.219/12.6	.218/12.6	.218/12.6
21	21	.064/19.6	.066/19.6	.072/19.0	.083/18.5	.101/17.5	.133/15.0	.178/14.0	.197/13.4	.194/13.1	.191/12.8	.190/12.6	.190/12.6	.190/12.6
15	7	.013/20.3	.015/19.6	.023/17.5	.047/14.3	.113/10.8	.318/ 7.4	.737/ 5.7	.831/ 5.7	.646/ 6.3	.480/ 6.4	.403/ 6.7	.363/ 6.5	.355/ 7.0
9	9	.024/20.3	.032/19.6	.044/17.5	.072/14.3	.135/11.6	.287/ 9.0	.584/ 6.3	.711/ 5.7	.642/ 6.3	.544/ 6.8	.479/ 7.1	.442/ 7.3	.431/ 7.3
11	11	.041/20.3	.045/19.6	.057/17.5	.082/15.0	.135/12.8	.266/10.5	.456/ 7.0	.568/ 6.3	.548/ 6.7	.499/ 7.0	.461/ 8.3	.437/ 8.3	.430/ 8.5
13	13	.047/20.3	.050/19.6	.061/17.5	.083/15.7	.123/13.7	.209/11.6	.362/ 8.3	.433/ 6.3	.453/ 6.7	.429/ 8.7	.409/ 9.2	.396/ 9.2	.392/ 9.0
15	15	.049/20.3	.052/19.6	.061/17.5	.090/17.0	.114/14.6	.178/12.8	.293/10.5	.367/ 6.3	.375/ 9.0	.363/ 9.5	.353/10.1	.346/10.1	.344/10.1
17	17	.049/20.3	.051/19.6	.059/19.6	.074/18.5	.102/15.7	.152/14.0	.242/11.6	.302/ 9.5	.312/ 9.8	.304/10.1	.303/10.1	.300/10.8	.299/10.8
19	19	.047/20.3	.049/21.7	.056/20.3	.068/19.0	.091/17.0	.132/15.3	.203/12.6	.252/12.1	.263/11.2	.263/11.2	.261/11.2	.260/11.2	.259/11.2
21	21	.045/23.3	.046/22.4	.052/21.7	.053/20.3	.082/18.5	.115/15.7	.173/14.0	.214/13.4	.225/13.1	.226/12.8	.226/12.6	.225/12.6	.225/12.6
20	7	.018/ 6.7	.018/ 6.4	.012/24.2	.022/19.0	.070/13.4	.240/ 8.5	.710/ 5.7	.911/ 5.7	.773/ 6.3	.601/ 6.8	.489/ 6.7	.430/ 7.0	.416/ 7.0
9	9	.017/27.3	.018/26.2	.022/23.3	.040/19.0	.091/13.4	.227/ 9.5	.566/ 6.3	.791/ 6.3	.787/ 6.7	.710/ 6.8	.637/ 7.1	.590/ 7.3	.576/ 7.3
11	11	.022/27.3	.024/26.2	.031/23.3	.051/19.0	.096/13.4	.201/11.2	.443/ 7.0	.631/ 6.3	.668/ 6.7	.644/ 7.3	.610/ 7.5	.585/ 7.7	.577/ 7.7
13	13	.027/27.3	.029/26.2	.037/23.3	.055/19.0	.093/12.3	.174/12.2	.352/ 7.9	.501/ 6.3	.547/ 6.7	.546/ 7.3	.532/ 7.5	.521/ 7.7	.517/ 7.7
15	15	.030/27.3	.032/26.2	.039/23.3	.055/19.0	.087/15.1	.150/13.4	.285/10.5	.404/ 6.3	.448/ 6.7	.436/ 7.3	.453/ 7.5	.448/ 7.7	.446/ 7.9
17	17	.031/27.3	.033/26.2	.040/23.3	.053/19.0	.080/14.0	.130/14.5	.236/11.6	.331/ 6.3	.370/ 6.7	.382/ 7.3	.384/ 7.5	.393/ 7.7	.382/ 7.9
19	19	.031/27.3	.033/26.2	.039/23.3	.051/19.0	.072/15.5	.114/15.7	.169/12.6	.276/ 6.3	.310/ 6.7	.323/ 7.3	.327/ 7.5	.328/11.2	.328/11.2
21	21	.031/27.3	.032/26.2	.037/23.3	.047/22.4	.066/19.6	.100/17.5	.159/14.0	.230/ 6.3	.263/ 6.7	.275/ 7.3	.280/11.2	.282/11.2	.283/11.2
25	7	.036/ 6.8	.034/ 6.4	.036/ 6.3	.014/25.1	.039/16.5	.191/ 9.2	.587/ 5.7	.989/ 6.3	.883/ 6.7	.698/ 6.8	.565/ 7.1	.493/ 7.3	.470/ 7.3
9	9	.024/ 6.8	.023/ 6.4	.024/29.9	.022/24.2	.058/16.5	.181/10.8	.551/ 6.3	.874/ 6.3	.935/ 6.7	.884/ 7.3	.814/ 7.5	.766/ 7.7	.749/ 7.7
11	11	.018/33.1	.018/33.1	.022/29.9	.030/24.2	.066/16.5	.155/11.6	.432/ 7.0	.698/ 6.3	.799/ 7.1	.812/ 7.5	.795/ 7.7	.778/ 7.9	.771/ 7.9
13	13	.018/33.1	.019/33.1	.026/29.9	.038/24.2	.064/16.5	.146/12.8	.344/ 7.9	.553/ 6.5	.652/ 7.1	.686/ 7.5	.691/ 7.9	.690/ 8.1	.688/ 8.1
15	15	.019/33.1	.021/33.1	.026/29.9	.038/24.2	.065/16.5	.128/14.0	.279/10.5	.444/ 6.5	.531/ 7.1	.569/ 7.5	.583/ 7.9	.588/ 8.1	.589/ 8.3
17	17	.020/33.1	.022/33.1	.027/29.9	.038/24.2	.062/16.5	.112/15.0	.231/11.6	.363/ 6.5	.437/ 7.1	.473/ 7.7	.490/ 7.9	.497/ 8.1	.499/ 8.3
19	19	.021/33.1	.022/33.1	.027/29.9	.037/24.2	.057/16.5	.099/16.5	.194/12.6	.301/ 6.5	.364/ 7.1	.397/ 7.7	.414/ 7.9	.422/ 8.1	.424/ 8.3
21	21	.021/33.1	.023/33.1	.027/29.9	.036/24.2	.053/16.5	.084/16.5	.165/14.0	.250/ 6.5	.308/ 7.1	.336/ 7.7	.352/ 7.9	.360/ 8.1	.363/ 8.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS POLL IN DEGREES/ENCOUNTERED MODAL PERIOD. T. IN SECONDS
OF

V	T	SHIP HEADING ANGLE IN DEGREES											
		0	15	30	45	60	75	90	105	120	135	150	165
5	7	1322/ 9.2	1324/ 9.2	1347/ 9.2	1353/ 9.2	1374/ 9.2	1394/ 9.2	1398/ 9.2	1344/ 9.0	1270/ 9.0	1223/ 8.7	181/ 8.5	150/ 8.1
9	9	1383/ 9.5	1377/ 9.5	1371/ 9.5	1363/ 9.5	1371/ 9.5	1397/ 9.5	1396/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
11	11	1411/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
13	13	1450/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
15	15	1477/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
17	17	1485/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
19	19	1482/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
21	21	1477/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
10	7	1334/ 9.5	1352/ 9.5	1362/ 9.5	1371/ 9.5	1374/ 9.5	1394/ 9.5	1398/ 9.5	1344/ 9.0	1270/ 9.0	1223/ 8.7	181/ 8.5	150/ 8.1
11	9	1366/ 9.5	1354/ 9.5	1377/ 9.5	1387/ 9.5	1390/ 9.5	1400/ 9.5	1400/ 9.5	1344/ 9.0	1270/ 9.0	1223/ 8.7	181/ 8.5	150/ 8.1
13	11	1413/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
15	13	1450/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
17	15	1477/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
19	17	1485/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
21	19	1482/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
15	7	1418/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
17	9	1446/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
19	11	1477/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
21	13	1485/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
20	7	1494/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
11	9	1534/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
13	11	1561/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
15	13	1588/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
17	15	1615/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
19	17	1642/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
21	19	1669/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
20	7	1694/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
11	9	1734/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
13	11	1761/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
15	13	1788/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
17	15	1815/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
19	17	1842/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2
21	19	1869/ 9.5	1355/ 9.5	1311/ 9.5	1311/ 9.5	1322/ 9.5	1343/ 9.5	1343/ 9.5	1266/ 9.2	1210/ 9.2	1230/ 9.2	319/ 9.2	233/ 9.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED
RMS PITCH IN DEGREES/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.047/10.1	.049/10.1	.053/9.8	.059/9.3	.065/7.9	.070/6.8	.073/6.7	.074/6.5	.073/6.5	.071/6.7	.067/6.7	.065/6.8	.064/6.8	
9	9	.069/11.2	.069/11.2	.069/11.2	.070/10.8	.072/10.5	.074/9.8	.078/7.9	.081/7.7	.085/7.7	.087/7.7	.090/7.7	.091/7.7	.091/7.7	
11	11	.077/12.1	.077/12.1	.075/12.1	.072/12.1	.070/11.6	.070/11.2	.072/9.8	.077/8.7	.082/8.7	.088/8.7	.093/8.7	.096/8.7	.098/8.7	
13	13	.076/13.1	.075/13.1	.072/13.1	.068/13.1	.065/12.6	.063/12.1	.064/11.2	.069/10.1	.075/9.8	.082/9.8	.088/9.8	.092/9.8	.093/10.1	
15	15	.071/14.3	.070/14.3	.067/14.0	.063/14.0	.058/13.4	.056/13.1	.056/12.1	.060/11.2	.067/11.2	.073/11.2	.079/11.2	.083/11.2	.085/11.2	
17	17	.065/14.6	.064/14.6	.061/14.6	.056/14.5	.052/14.3	.049/14.0	.049/13.1	.053/12.6	.059/12.1	.065/12.1	.071/12.1	.075/12.1	.076/12.1	
19	19	.058/15.7	.057/15.7	.054/15.7	.050/15.7	.046/15.3	.043/15.0	.043/14.3	.046/13.1	.051/12.8	.058/12.6	.063/12.6	.066/12.6	.068/12.6	
21	21	.052/17.0	.051/17.0	.049/17.0	.045/17.0	.040/16.1	.036/15.7	.037/15.0	.040/14.3	.045/14.3	.051/14.3	.056/14.3	.059/14.3	.060/14.3	
10	7	.040/13.4	.042/13.4	.046/13.4	.052/13.4	.058/13.7	.063/12.8	.067/12.1	.069/11.6	.069/11.6	.068/11.2	.065/10.8	.064/10.8	.063/10.8	
9	9	.061/14.0	.061/14.0	.062/14.0	.063/14.0	.065/13.7	.069/12.8	.074/11.2	.079/11.2	.084/10.1	.088/9.8	.092/9.8	.094/9.8	.095/9.8	
11	11	.070/14.6	.069/14.6	.068/14.6	.066/14.5	.063/14.0	.059/13.7	.056/13.1	.059/12.1	.064/11.2	.069/10.1	.074/9.8	.078/9.8	.080/9.8	
13	13	.070/15.3	.069/15.3	.068/15.3	.066/15.3	.063/14.0	.059/13.7	.056/13.1	.059/12.1	.064/11.2	.069/10.1	.074/9.8	.078/9.8	.080/9.8	
15	15	.065/16.1	.064/16.1	.061/16.1	.058/15.7	.054/15.3	.051/15.0	.051/14.3	.054/13.1	.059/12.1	.064/11.2	.069/10.1	.074/9.8	.078/9.8	
17	17	.060/17.0	.059/17.0	.056/17.0	.052/16.5	.048/16.1	.046/15.7	.046/15.0	.049/14.3	.054/13.1	.059/12.1	.064/11.2	.069/10.1	.074/9.8	
19	19	.054/17.5	.053/17.5	.050/17.5	.046/17.0	.043/16.5	.041/16.1	.041/15.0	.044/14.3	.049/13.1	.054/12.1	.059/11.2	.064/10.1	.069/10.1	
21	21	.048/18.0	.047/18.0	.045/18.0	.041/18.0	.037/17.5	.036/17.0	.037/16.1	.040/15.0	.045/14.3	.050/13.1	.055/12.1	.060/11.2	.065/10.1	
15	7	.036/17.5	.037/17.5	.041/17.5	.046/17.5	.052/17.5	.057/17.5	.060/17.0	.062/16.5	.062/16.5	.061/16.5	.059/16.5	.058/16.5	.057/16.5	
9	9	.055/17.5	.055/17.5	.056/17.5	.057/17.5	.058/17.5	.060/17.5	.061/17.5	.062/17.5	.062/17.5	.061/17.5	.059/17.5	.058/17.5	.057/17.5	
11	11	.063/19.6	.063/19.6	.061/19.6	.058/19.6	.055/19.6	.052/19.6	.050/19.6	.051/19.6	.051/19.6	.050/19.6	.049/19.6	.048/19.6	.047/19.6	
13	13	.064/20.3	.063/20.3	.060/20.3	.058/20.3	.056/20.3	.054/20.3	.053/20.3	.053/20.3	.053/20.3	.052/20.3	.051/20.3	.050/20.3	.049/20.3	
15	15	.060/20.3	.059/20.3	.056/20.3	.053/20.3	.050/20.3	.048/20.3	.047/20.3	.047/20.3	.047/20.3	.046/20.3	.045/20.3	.044/20.3	.043/20.3	
17	17	.055/20.3	.054/20.3	.051/20.3	.048/20.3	.045/20.3	.043/20.3	.042/20.3	.042/20.3	.042/20.3	.041/20.3	.040/20.3	.039/20.3	.038/20.3	
19	19	.049/20.3	.048/20.3	.046/20.3	.043/20.3	.040/20.3	.038/20.3	.037/20.3	.037/20.3	.037/20.3	.036/20.3	.035/20.3	.034/20.3	.033/20.3	
21	21	.044/20.3	.043/20.3	.041/20.3	.038/20.3	.035/20.3	.034/20.3	.033/20.3	.033/20.3	.033/20.3	.032/20.3	.031/20.3	.030/20.3	.029/20.3	
20	7	.033/13.4	.034/13.4	.038/13.4	.042/13.4	.047/13.4	.051/13.4	.054/13.4	.055/13.4	.055/13.4	.053/13.4	.051/13.4	.050/13.4	.049/13.4	
9	9	.050/22.3	.050/22.3	.051/22.3	.052/22.3	.053/22.3	.054/22.3	.055/22.3	.055/22.3	.055/22.3	.054/22.3	.053/22.3	.052/22.3	.051/22.3	
11	11	.058/23.3	.057/23.3	.056/23.3	.055/23.3	.054/23.3	.053/23.3	.052/23.3	.051/23.3	.051/23.3	.050/23.3	.049/23.3	.048/23.3	.047/23.3	
13	13	.058/26.2	.057/26.2	.055/26.2	.053/26.2	.051/26.2	.049/26.2	.048/26.2	.048/26.2	.047/26.2	.046/26.2	.045/26.2	.044/26.2	.043/26.2	
15	15	.055/26.2	.054/26.2	.052/26.2	.050/26.2	.048/26.2	.046/26.2	.045/26.2	.045/26.2	.044/26.2	.043/26.2	.042/26.2	.041/26.2	.040/26.2	
17	17	.050/26.2	.049/26.2	.047/26.2	.045/26.2	.043/26.2	.041/26.2	.040/26.2	.040/26.2	.039/26.2	.038/26.2	.037/26.2	.036/26.2	.035/26.2	
19	19	.045/26.2	.044/26.2	.042/26.2	.040/26.2	.038/26.2	.036/26.2	.035/26.2	.035/26.2	.034/26.2	.033/26.2	.032/26.2	.031/26.2	.030/26.2	
21	21	.041/26.2	.040/26.2	.038/26.2	.035/26.2	.033/26.2	.032/26.2	.031/26.2	.031/26.2	.030/26.2	.029/26.2	.028/26.2	.027/26.2	.026/26.2	
25	7	.032/16.5	.033/16.5	.035/16.5	.040/16.5	.043/16.5	.047/16.5	.049/16.5	.049/16.5	.049/16.5	.047/16.5	.046/16.5	.045/16.5	.044/16.5	
9	9	.047/16.5	.047/16.5	.048/16.5	.049/16.5	.051/16.5	.055/16.5	.060/16.5	.065/16.5	.069/16.5	.073/16.5	.076/16.5	.078/16.5	.078/16.5	
11	11	.054/16.5	.053/16.5	.052/16.5	.051/16.5	.050/16.5	.049/16.5	.048/16.5	.047/16.5	.046/16.5	.045/16.5	.044/16.5	.043/16.5	.042/16.5	
13	13	.053/33.1	.053/33.1	.051/33.1	.049/33.1	.047/33.1	.045/33.1	.044/33.1	.043/33.1	.042/33.1	.041/33.1	.040/33.1	.039/33.1	.038/33.1	
15	15	.050/33.1	.050/33.1	.048/33.1	.046/33.1	.044/33.1	.042/33.1	.041/33.1	.040/33.1	.039/33.1	.038/33.1	.037/33.1	.036/33.1	.035/33.1	
17	17	.046/33.1	.045/33.1	.043/33.1	.041/33.1	.039/33.1	.037/33.1	.036/33.1	.035/33.1	.034/33.1	.033/33.1	.032/33.1	.031/33.1	.030/33.1	
19	19	.042/33.1	.041/33.1	.039/33.1	.037/33.1	.035/33.1	.033/33.1	.032/33.1	.031/33.1	.030/33.1	.029/33.1	.028/33.1	.027/33.1	.026/33.1	
21	21	.037/33.1	.037/33.1	.035/33.1	.033/33.1	.031/33.1	.030/33.1	.029/33.1	.028/33.1	.027/33.1	.026/33.1	.025/33.1	.024/33.1	.023/33.1	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCRESTED

RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM RL

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.032/ 9.8	.039/ 9.5	.054/ 9.0	.069/ 8.3	.081/ 8.3	.096/ 7.9	.090/ 7.9	.086/ 7.9	.077/ 7.7	.064/ 7.5	.048/ 7.5	.032/ 7.5	.024/ 7.7
9	9	.059/11.2	.067/11.2	.085/10.8	.103/10.5	.118/10.1	.127/10.1	.129/ 9.8	.123/ 9.8	.110/ 9.8	.093/ 9.5	.072/ 9.5	.053/ 9.5	.045/ 9.5
11	11	.083/13.1	.091/13.1	.110/12.8	.131/12.6	.144/12.6	.159/12.1	.159/11.6	.153/11.6	.138/11.2	.118/11.2	.095/11.2	.074/11.2	.065/11.2
13	13	.100/15.0	.109/14.6	.129/14.3	.151/14.3	.169/14.0	.186/14.0	.182/13.7	.174/13.4	.159/13.4	.137/13.1	.112/13.1	.091/12.8	.082/12.8
15	15	.112/16.5	.121/16.5	.141/16.1	.164/16.1	.183/15.7	.195/15.7	.197/15.3	.190/15.3	.174/15.0	.151/15.0	.126/14.6	.104/14.6	.095/14.6
17	17	.119/18.5	.127/18.0	.144/18.0	.171/17.5	.191/17.5	.204/17.5	.206/17.0	.199/17.0	.183/17.0	.160/17.0	.134/16.5	.113/16.5	.104/16.5
19	19	.122/19.0	.131/19.0	.152/19.0	.175/19.0	.195/18.6	.208/18.6	.211/18.5	.204/18.0	.186/18.0	.163/17.5	.139/17.5	.118/17.5	.109/17.5
21	21	.125/21.7	.133/21.7	.154/20.9	.178/20.9	.194/20.9	.211/20.3	.214/20.3	.207/20.3	.191/20.3	.168/20.3	.143/19.6	.121/19.6	.112/19.6
10	7	.040/11.6	.046/11.6	.061/ 9.5	.075/ 9.5	.086/ 9.5	.092/ 8.1	.093/ 7.9	.088/ 7.9	.079/ 7.9	.063/ 7.9	.047/ 7.7	.030/ 7.7	.022/ 7.7
9	9	.069/13.1	.076/13.1	.094/13.1	.111/13.1	.125/13.8	.132/13.8	.132/12.5	.125/12.1	.110/ 9.8	.091/ 9.8	.069/ 9.5	.050/ 9.5	.041/ 9.5
11	11	.093/14.6	.101/14.6	.120/14.6	.140/14.6	.155/14.6	.163/14.6	.162/12.6	.153/12.1	.136/11.6	.114/11.6	.090/11.2	.069/11.2	.060/11.2
13	13	.111/16.1	.119/16.1	.138/16.1	.159/16.1	.176/16.5	.184/16.5	.189/15.7	.189/15.7	.171/15.3	.146/15.0	.120/15.0	.097/14.6	.088/14.6
15	15	.122/17.5	.130/17.5	.150/17.5	.172/17.5	.191/17.5	.199/17.5	.197/17.5	.197/17.5	.179/17.0	.155/17.0	.128/17.0	.106/16.5	.097/16.5
17	17	.127/19.0	.136/19.0	.155/19.0	.178/19.0	.196/19.0	.207/19.0	.211/19.0	.202/18.5	.184/18.0	.160/18.0	.133/18.0	.111/17.5	.102/17.5
19	19	.130/20.9	.139/20.3	.158/20.3	.181/20.3	.197/20.3	.213/20.3	.214/20.3	.205/20.3	.187/20.3	.163/20.3	.137/19.6	.115/19.6	.106/19.6
21	21	.132/23.3	.141/22.4	.160/21.7	.183/21.7	.202/20.9	.213/20.9	.214/20.9	.203/20.3	.183/20.3	.158/20.3	.131/20.3	.109/19.6	.099/19.6
15	7	.02/14.3	.085/14.3	.092/14.3	.093/14.3	.104/14.3	.105/14.3	.101/ 8.5	.092/ 8.5	.079/ 8.3	.063/ 8.1	.046/ 7.9	.029/ 7.7	.020/ 7.7
9	9	.094/17.5	.100/17.5	.113/17.5	.126/17.5	.141/17.5	.143/17.5	.139/11.2	.128/10.5	.111/10.1	.090/ 9.8	.067/ 9.5	.047/ 9.2	.038/ 9.2
11	11	.127/17.5	.134/17.5	.152/17.5	.171/17.5	.186/17.5	.192/17.5	.185/15.3	.175/14.3	.154/14.0	.129/13.7	.102/13.4	.079/13.1	.070/13.1
13	13	.136/19.6	.143/19.6	.162/19.6	.182/19.6	.198/19.6	.205/19.6	.202/17.0	.189/15.7	.169/15.3	.142/15.3	.114/15.0	.091/15.0	.082/14.6
15	15	.140/20.3	.148/20.3	.166/20.3	.187/20.3	.203/20.3	.211/20.3	.209/18.0	.196/17.5	.176/17.5	.150/17.0	.122/17.0	.099/17.0	.090/17.0
17	17	.142/22.4	.150/22.4	.169/21.7	.191/21.7	.206/20.9	.214/20.3	.212/19.6	.201/19.6	.180/19.0	.154/18.0	.127/18.0	.105/18.0	.096/18.0
19	19	.144/24.2	.152/24.2	.170/23.3	.191/22.4	.205/22.4	.216/20.9	.215/20.9	.203/20.3	.183/20.3	.158/20.3	.131/20.3	.109/19.6	.099/19.6
20	7	.152/26.2	.153/26.2	.165/26.2	.184/26.2	.203/26.2	.214/26.2	.214/26.2	.203/26.2	.184/26.2	.165/ 8.7	.045/ 7.9	.027/ 7.5	.019/ 7.7
9	9	.156/19.0	.159/19.0	.165/19.0	.171/19.0	.176/19.0	.182/19.0	.181/19.0	.179/19.0	.175/19.0	.170/19.0	.165/ 9.5	.064/ 9.2	.051/ 9.2
11	11	.161/23.3	.165/23.3	.174/23.3	.187/23.3	.193/23.3	.201/23.3	.201/23.3	.192/23.3	.183/23.3	.170/23.3	.154/23.3	.136/23.3	.127/23.3
13	13	.166/23.3	.171/23.3	.184/23.3	.198/23.3	.204/23.3	.211/23.3	.209/19.0	.191/18.0	.166/15.7	.138/13.4	.109/13.4	.085/13.1	.076/13.1
15	15	.168/23.3	.174/23.3	.189/23.3	.204/23.3	.219/23.3	.222/23.3	.215/19.0	.198/19.0	.174/17.5	.146/16.5	.116/16.5	.093/17.0	.084/17.0
17	17	.168/26.2	.174/26.2	.189/26.2	.207/26.2	.219/26.2	.223/26.2	.217/20.3	.203/20.3	.178/19.6	.150/19.6	.121/18.0	.099/19.0	.089/19.6
19	19	.167/26.2	.173/26.2	.189/26.2	.207/26.2	.219/26.2	.224/26.2	.219/23.3	.203/20.3	.180/20.3	.153/20.3	.125/20.3	.102/19.6	.093/19.6
25	7	.179/16.5	.182/16.5	.189/16.5	.195/16.5	.203/16.5	.215/16.5	.214/16.5	.203/16.5	.182/16.5	.161/16.5	.140/16.5	.125/20.3	.109/20.3
9	9	.210/16.5	.213/16.5	.219/16.5	.225/16.5	.231/16.5	.241/16.5	.241/16.5	.230/16.5	.206/16.5	.182/16.5	.158/16.5	.135/16.5	.111/16.5
11	11	.222/24.2	.225/24.2	.231/24.2	.237/24.2	.241/24.2	.249/24.2	.249/24.2	.238/24.2	.217/20.3	.194/20.3	.171/20.3	.146/19.6	.127/19.6
13	13	.225/24.2	.228/24.2	.233/24.2	.239/24.2	.243/24.2	.251/24.2	.251/24.2	.240/24.2	.217/20.3	.194/20.3	.171/20.3	.146/19.6	.127/19.6
15	15	.223/24.2	.227/24.2	.231/24.2	.237/24.2	.241/24.2	.249/24.2	.249/24.2	.238/24.2	.217/20.3	.194/20.3	.171/20.3	.146/19.6	.127/19.6
17	17	.218/29.9	.222/29.9	.225/29.9	.233/29.9	.237/29.9	.244/29.9	.244/29.9	.233/29.9	.217/20.3	.194/20.3	.171/20.3	.146/19.6	.127/19.6
19	19	.217/29.9	.221/29.9	.224/29.9	.232/29.9	.236/29.9	.244/29.9	.244/29.9	.233/29.9	.217/20.3	.194/20.3	.171/20.3	.146/19.6	.127/19.6
21	21	.207/29.9	.211/29.9	.223/29.9	.236/29.9	.244/29.9	.244/29.9	.244/29.9	.233/29.9	.217/20.3	.194/20.3	.171/20.3	.146/19.6	.127/19.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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MS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

SHORTCUTS
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM BL

SHIP HEADING ANGLE IN DEGREES

SHIP HEADING ANGLE IN DEGREES

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	
2	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100		
3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100			
4	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				
5	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100					
6	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100						
7	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100							
8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100								
9	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100									
10	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100										
11	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100											
12	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100												
13	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100													
14	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100														
15	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100															
16	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																
17	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82																																			

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

DE 1078

SHORTCUTTED
RMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
(ACC. X 100)
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM BL

SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.055/8.7	.081/7.9	.129/7.1	.176/7.0	.213/6.7	.238/6.7	.248/6.7	.242/6.7	.220/6.7	.186/6.7	.141/6.7	.094/7.0	.064/7.1
9	9	.071/10.1	.091/9.8	.131/9.5	.172/9.2	.206/9.0	.229/8.3	.238/8.1	.232/7.9	.213/7.9	.181/7.9	.141/7.9	.101/8.1	.081/8.3
11	11	.076/11.6	.091/11.2	.124/10.8	.159/10.1	.189/10.1	.208/9.8	.216/9.8	.211/9.8	.194/9.8	.161/9.8	.133/9.8	.101/9.8	.086/10.1
13	13	.075/13.1	.087/12.8	.113/12.1	.143/11.6	.168/11.6	.184/11.6	.191/10.8	.187/10.8	.173/10.8	.150/10.8	.122/10.8	.094/10.8	.084/10.8
15	15	.070/14.0	.079/14.0	.102/13.4	.126/13.1	.148/13.1	.162/12.6	.168/12.6	.165/12.1	.153/12.1	.134/12.1	.110/12.1	.089/12.1	.079/12.1
17	17	.064/15.3	.072/15.0	.090/14.0	.111/14.3	.130/14.0	.142/13.7	.147/13.4	.145/13.4	.135/13.4	.114/13.1	.099/13.1	.081/13.1	.073/13.1
19	19	.057/16.1	.064/15.7	.080/15.7	.106/15.3	.114/15.3	.125/15.0	.129/14.6	.127/14.6	.118/14.3	.104/14.3	.084/14.3	.072/14.3	.066/14.3
21	21	.052/17.0	.057/17.0	.071/16.5	.087/16.1	.100/15.7	.110/15.3	.114/15.3	.112/15.3	.104/15.0	.092/15.0	.078/15.0	.065/15.0	.059/14.6
10	7	.051/9.5	.078/9.5	.126/7.5	.174/7.3	.213/7.0	.234/7.0	.250/7.0	.245/6.7	.224/6.7	.190/6.7	.145/6.7	.098/6.8	.072/7.0
9	9	.065/11.6	.085/11.6	.127/9.5	.170/9.5	.205/9.2	.230/8.3	.240/8.3	.236/8.1	.218/8.1	.187/8.1	.147/8.1	.107/8.3	.087/8.3
11	11	.069/13.4	.085/12.8	.119/11.6	.155/10.5	.186/10.5	.208/10.1	.218/9.8	.215/9.8	.199/9.5	.173/9.5	.140/9.5	.107/9.5	.092/9.5
13	13	.068/14.6	.080/14.3	.108/13.4	.139/12.6	.165/12.1	.184/11.6	.192/11.2	.190/11.2	.177/10.8	.155/10.8	.128/10.8	.102/11.2	.090/11.2
15	15	.063/15.7	.073/15.3	.096/14.6	.122/14.0	.145/13.4	.161/13.1	.169/12.6	.167/12.6	.157/12.1	.138/12.1	.115/12.1	.094/12.1	.085/12.1
17	17	.058/16.5	.066/16.1	.086/15.7	.108/15.0	.127/14.6	.141/14.0	.148/13.7	.147/13.4	.138/13.4	.122/13.1	.103/13.1	.085/13.1	.077/13.1
19	19	.052/17.5	.059/17.0	.076/16.5	.095/15.7	.111/15.7	.124/15.3	.129/15.0	.129/14.6	.121/14.6	.108/14.3	.091/14.3	.076/14.3	.070/14.3
21	21	.047/18.5	.053/18.0	.067/17.5	.084/17.0	.098/16.5	.109/15.7	.114/15.7	.113/15.3	.107/15.3	.095/15.0	.081/15.0	.068/15.0	.063/15.0
15	7	.047/18.3	.075/8.5	.124/8.1	.173/7.9	.213/7.5	.240/7.0	.252/6.5	.248/6.5	.228/6.5	.194/6.5	.150/6.7	.102/6.8	.076/7.0
9	9	.059/16.3	.080/14.3	.123/9.2	.167/9.0	.204/8.7	.230/8.5	.243/8.5	.240/8.3	.223/8.3	.193/8.3	.154/8.3	.113/8.3	.094/8.3
11	11	.062/17.5	.073/14.3	.114/12.1	.152/11.2	.184/10.5	.208/10.1	.219/9.8	.218/9.5	.204/9.5	.179/9.2	.146/9.2	.114/9.2	.099/9.2
13	13	.057/17.5	.064/17.5	.093/15.3	.135/14.6	.163/14.3	.183/14.0	.193/13.6	.193/13.6	.181/13.2	.160/12.6	.134/12.6	.108/12.6	.096/12.6
15	15	.052/17.5	.061/17.5	.091/15.3	.134/14.3	.162/14.3	.180/14.3	.189/14.3	.189/14.3	.176/13.7	.154/13.1	.129/13.1	.103/13.1	.090/13.1
17	17	.052/17.5	.061/17.5	.091/15.3	.134/14.3	.162/14.3	.180/14.3	.189/14.3	.189/14.3	.176/13.7	.154/13.1	.129/13.1	.103/13.1	.090/13.1
19	19	.047/19.6	.055/19.6	.072/17.5	.091/17.5	.109/17.5	.122/17.5	.130/17.5	.130/17.5	.123/17.5	.111/17.5	.095/17.5	.080/17.5	.074/17.5
21	21	.043/19.6	.049/19.6	.064/19.5	.081/17.5	.096/17.5	.108/17.5	.114/17.5	.114/17.5	.109/17.5	.098/17.5	.084/17.5	.072/17.5	.066/17.5
20	7	.044/13.4	.072/13.4	.122/13.4	.172/8.7	.213/8.3	.241/8.3	.255/8.5	.251/8.5	.232/8.5	.199/8.5	.154/8.5	.108/8.5	.080/7.0
9	9	.054/19.0	.074/19.0	.119/13.4	.163/13.4	.203/9.2	.231/9.0	.245/8.7	.244/8.5	.228/8.5	.194/8.5	.154/8.5	.114/8.5	.099/8.3
11	11	.057/19.0	.074/19.0	.119/13.4	.163/13.4	.203/9.2	.231/9.0	.245/8.7	.244/8.5	.228/8.5	.194/8.5	.154/8.5	.114/8.5	.099/8.3
13	13	.055/19.0	.069/19.0	.099/19.0	.131/13.4	.161/13.4	.183/13.4	.195/13.4	.195/13.4	.185/13.4	.165/13.4	.139/13.4	.113/13.4	.101/13.4
15	15	.052/19.0	.063/19.0	.084/19.0	.115/14.6	.140/13.4	.169/13.4	.175/13.4	.171/13.4	.163/13.4	.146/13.4	.124/13.4	.103/13.4	.094/13.4
17	17	.048/23.3	.057/23.3	.078/19.0	.101/19.0	.123/15.0	.139/14.6	.148/14.0	.150/13.4	.143/13.4	.129/13.4	.111/13.4	.093/13.4	.086/13.4
19	19	.044/23.3	.051/23.3	.069/19.0	.099/19.0	.107/19.0	.122/15.3	.130/15.3	.131/15.0	.125/14.6	.113/14.6	.098/14.3	.083/14.6	.077/14.6
21	21	.040/23.3	.046/23.3	.061/23.3	.078/19.0	.094/19.0	.107/16.1	.114/15.7	.115/15.7	.110/15.3	.100/15.3	.087/15.0	.074/15.0	.069/15.0
25	7	.041/16.5	.070/16.5	.120/16.5	.171/16.5	.213/16.5	.243/16.5	.257/16.5	.255/16.5	.236/16.5	.203/16.5	.158/16.5	.110/16.5	.084/7.0
9	9	.044/16.5	.072/16.5	.117/16.5	.163/16.5	.203/16.5	.232/16.5	.248/16.5	.248/16.5	.233/16.5	.204/16.5	.165/16.5	.125/16.5	.105/16.5
11	11	.052/16.5	.070/16.5	.107/16.5	.147/16.5	.182/16.5	.208/16.5	.223/16.5	.225/16.5	.213/16.5	.189/16.5	.157/16.5	.125/16.5	.110/16.5
13	13	.052/16.5	.065/16.5	.096/16.5	.124/16.5	.160/16.5	.183/16.5	.196/16.5	.196/16.5	.189/16.5	.165/16.5	.143/16.5	.113/16.5	.106/16.5
15	15	.044/16.5	.050/16.5	.085/16.5	.113/16.5	.139/16.5	.164/16.5	.171/16.5	.171/16.5	.166/16.5	.150/16.5	.128/16.5	.107/16.5	.098/16.5
17	17	.046/24.2	.055/24.2	.075/24.2	.094/24.2	.121/24.2	.139/24.2	.149/24.2	.151/24.2	.145/24.2	.132/24.2	.114/24.2	.097/24.2	.089/24.2
19	19	.042/24.2	.049/24.2	.067/24.2	.087/24.2	.106/24.2	.121/24.2	.130/24.2	.132/24.2	.127/24.2	.116/24.2	.101/24.2	.086/24.2	.080/24.2
21	21	.038/24.2	.045/24.2	.059/24.2	.077/24.2	.093/24.2	.106/24.2	.114/24.2	.116/24.2	.112/24.2	.102/24.2	.089/24.2	.077/24.2	.071/24.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHORTCUTTESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM BL

SHIP HEADINGS ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.051/10.5	.062/8.7	.087/8.3	.114/7.9	.138/7.5	.155/7.1	.164/7.0	.163/7.0	.154/6.8	.136/6.7	.114/6.7	.093/6.8	.084/6.8
9	9	.097/12.1	.105/12.1	.124/11.6	.144/10.8	.170/10.5	.186/9.5	.194/9.2	.193/9.0	.184/9.0	.161/8.7	.149/8.7	.132/8.7	.125/8.7
11	11	.141/13.4	.146/13.4	.159/13.1	.177/12.8	.194/12.5	.213/11.6	.224/11.2	.224/11.2	.204/10.8	.181/10.8	.177/10.8	.169/10.8	.160/10.8
13	13	.173/15.3	.176/15.3	.186/14.6	.198/14.3	.211/14.0	.225/13.1	.234/12.8	.234/12.8	.218/12.6	.198/12.6	.189/12.6	.185/12.6	.180/12.6
15	15	.195/17.0	.197/17.0	.204/16.5	.214/16.1	.223/15.7	.230/15.3	.236/15.0	.233/14.6	.228/14.6	.221/14.3	.213/14.3	.207/14.3	.205/14.3
17	17	.209/19.0	.211/19.0	.216/18.5	.223/18.0	.230/17.5	.235/17.5	.238/17.0	.238/17.0	.234/16.5	.224/16.5	.217/16.5	.214/16.5	.212/16.5
19	19	.219/19.6	.220/19.6	.224/19.6	.229/19.6	.235/19.6	.241/19.6	.244/19.6	.244/19.6	.238/18.9	.234/18.9	.230/18.9	.227/18.9	.225/18.9
21	21	.221/22.4	.228/22.4	.231/22.4	.235/21.7	.239/21.7	.242/20.9	.244/20.9	.244/20.9	.242/20.3	.234/19.6	.230/19.6	.227/19.6	.225/19.6
10	7	.048/12.8	.060/12.8	.085/9.5	.114/7.5	.140/7.1	.159/7.0	.170/6.8	.171/6.7	.163/6.7	.147/6.7	.127/6.7	.107/6.8	.099/6.8
9	9	.095/14.6	.102/14.6	.122/14.6	.147/11.6	.171/10.5	.189/9.5	.201/9.2	.203/9.0	.198/8.7	.185/8.5	.170/8.3	.156/8.3	.150/8.3
11	11	.137/15.7	.143/15.7	.152/15.3	.175/13.0	.193/13.4	.208/12.6	.217/11.6	.220/11.2	.215/10.8	.205/10.5	.195/10.5	.185/10.1	.181/10.1
13	13	.169/17.0	.172/17.0	.182/17.0	.196/16.5	.209/15.7	.221/14.6	.228/13.7	.229/13.4	.226/12.8	.219/12.6	.211/12.6	.204/12.6	.201/12.6
15	15	.191/19.5	.194/19.5	.201/18.5	.211/18.0	.221/17.5	.230/16.5	.235/15.7	.236/15.0	.234/14.6	.229/14.3	.222/14.3	.217/14.3	.216/14.3
17	17	.205/20.3	.207/20.3	.213/19.6	.220/19.5	.228/19.0	.234/18.0	.239/17.5	.240/17.0	.238/16.5	.234/16.5	.229/16.5	.226/16.5	.224/16.5
19	19	.216/21.7	.217/21.7	.221/21.7	.227/21.7	.233/20.9	.238/20.3	.241/19.6	.242/19.0	.241/18.5	.238/18.0	.234/17.5	.232/17.5	.231/17.0
21	21	.224/24.2	.225/24.2	.228/24.2	.233/23.3	.237/22.4	.241/21.7	.244/20.9	.245/20.3	.244/20.3	.239/19.6	.234/19.6	.231/19.6	.230/19.6
15	7	.046/14.3	.058/14.3	.084/14.3	.113/7.9	.140/7.0	.161/7.0	.173/6.8	.177/6.8	.170/6.8	.156/6.8	.136/7.0	.118/7.1	.110/7.1
9	9	.091/17.5	.099/17.5	.120/17.5	.146/17.5	.172/16.6	.193/15.7	.208/14.6	.215/14.3	.213/14.3	.205/14.3	.193/14.3	.182/7.9	.177/7.9
11	11	.133/20.3	.138/20.3	.153/20.3	.173/20.3	.193/20.3	.213/20.3	.224/19.6	.230/19.6	.230/19.6	.225/19.6	.217/19.6	.211/9.8	.208/9.8
13	13	.164/22.4	.168/22.4	.179/22.4	.193/22.4	.208/22.4	.222/21.7	.232/21.3	.237/21.3	.237/21.3	.234/21.3	.229/21.3	.226/21.6	.222/21.6
15	15	.187/24.2	.190/24.2	.197/24.2	.208/24.2	.220/24.2	.230/23.3	.238/22.4	.241/21.7	.242/21.3	.239/21.3	.236/21.3	.232/21.3	.231/21.3
17	17	.202/26.2	.204/26.2	.209/26.2	.218/26.2	.226/26.2	.234/25.1	.240/24.2	.243/23.3	.244/23.3	.242/23.3	.239/23.3	.237/23.3	.236/23.3
19	19	.213/28.2	.214/28.2	.218/28.2	.225/28.2	.231/28.2	.237/27.3	.242/26.2	.244/25.1	.245/24.2	.243/24.2	.241/24.2	.240/24.2	.239/24.2
21	21	.222/30.2	.223/30.2	.226/30.2	.231/30.2	.236/30.2	.241/29.1	.244/28.2	.246/27.3	.247/26.2	.246/25.1	.244/24.2	.243/24.2	.242/24.2
20	7	.045/13.4	.057/13.4	.083/13.4	.113/13.4	.140/13.4	.161/13.4	.175/13.4	.178/13.4	.173/13.4	.159/13.4	.140/13.4	.121/13.4	.113/13.4
9	9	.084/19.0	.096/19.0	.117/19.0	.145/19.0	.173/19.0	.197/19.0	.214/18.0	.224/17.5	.224/17.5	.220/17.5	.211/17.5	.202/17.5	.198/17.5
11	11	.129/23.3	.135/23.3	.150/23.3	.171/23.3	.193/23.3	.214/23.3	.230/23.3	.237/23.3	.237/23.3	.234/23.3	.230/23.3	.226/23.3	.224/23.3
13	13	.160/26.2	.164/26.2	.175/26.2	.191/26.2	.208/26.2	.224/26.2	.237/26.2	.246/26.2	.246/26.2	.244/26.2	.240/26.2	.236/26.2	.234/26.2
15	15	.184/28.2	.186/28.2	.194/28.2	.206/28.2	.219/28.2	.230/28.2	.238/27.3	.241/26.2	.242/26.2	.240/26.2	.237/26.2	.235/26.2	.234/26.2
17	17	.199/30.2	.201/30.2	.207/30.2	.216/30.2	.225/30.2	.233/30.2	.240/30.2	.244/30.2	.244/30.2	.242/30.2	.239/30.2	.237/30.2	.236/30.2
19	19	.210/32.2	.212/32.2	.216/32.2	.223/32.2	.230/32.2	.236/32.2	.242/32.2	.246/32.2	.246/32.2	.244/32.2	.241/32.2	.240/32.2	.239/32.2
21	21	.220/34.2	.221/34.2	.224/34.2	.229/34.2	.235/34.2	.241/34.2	.246/34.2	.249/34.2	.250/34.2	.248/34.2	.245/34.2	.244/34.2	.243/34.2
25	7	.044/16.5	.056/16.5	.082/16.5	.112/16.5	.140/16.5	.161/16.5	.174/16.5	.178/16.5	.172/16.5	.157/16.5	.137/16.5	.118/16.5	.110/16.5
9	9	.086/19.0	.094/19.0	.116/19.0	.144/19.0	.172/19.0	.199/19.0	.219/19.0	.231/19.0	.231/19.0	.227/19.0	.222/19.0	.218/19.0	.216/19.0
11	11	.127/23.3	.133/23.3	.148/23.3	.170/23.3	.194/23.3	.217/23.3	.236/23.3	.246/23.3	.246/23.3	.244/23.3	.240/23.3	.236/23.3	.234/23.3
13	13	.158/26.2	.163/26.2	.174/26.2	.190/26.2	.209/26.2	.229/26.2	.246/26.2	.256/26.2	.256/26.2	.254/26.2	.250/26.2	.246/26.2	.244/26.2
15	15	.182/28.2	.185/28.2	.193/28.2	.205/28.2	.219/28.2	.233/28.2	.246/28.2	.256/28.2	.256/28.2	.254/28.2	.250/28.2	.246/28.2	.244/28.2
17	17	.198/30.2	.200/30.2	.206/30.2	.215/30.2	.226/30.2	.236/30.2	.246/30.2	.256/30.2	.256/30.2	.254/30.2	.250/30.2	.246/30.2	.244/30.2
19	19	.209/32.2	.211/32.2	.216/32.2	.223/32.2	.231/32.2	.238/32.2	.246/32.2	.256/32.2	.256/32.2	.254/32.2	.250/32.2	.246/32.2	.244/32.2
21	21	.214/34.2	.216/34.2	.224/34.2	.229/34.2	.235/34.2	.241/34.2	.246/34.2	.256/34.2	.256/34.2	.254/34.2	.250/34.2	.246/34.2	.244/34.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

SHORTCUTTED
HMS VEH VLL IN FPS/ENCOUNTERED MUDAL PERIOD, T, IN SECONDS
CENTER OF GRAVITY - 20.5 FT FORWARD OF AP AND 15.5 FT FROM RL

V	T	SHIP HEADING ANGLE IN DEGREES										180		
		0	15	30	45	60	75	90	105	120	135		150	165
5	7	037/8.7	050/8.5	076/7.1	105/6.7	131/5.3	149/5.3	160/5.3	160/5.3	152/6.3	136/6.3	115/6.3	094/6.3	084/6.4
	9	057/11.6	065/11.6	085/11.2	109/9.2	131/8.7	148/8.3	158/8.1	159/7.9	153/7.9	141/7.9	124/7.9	103/8.1	103/8.1
	11	071/13.1	077/12.8	090/12.5	108/12.1	125/11.2	139/10.8	147/10.5	149/9.8	134/9.8	136/9.5	125/9.8	110/9.8	110/9.8
	13	079/14.3	082/14.3	092/14.0	105/13.4	117/12.8	128/12.6	135/12.1	137/11.6	121/11.2	128/11.2	121/11.2	114/11.2	114/11.2
	15	081/15.7	083/15.7	089/15.3	100/15.0	110/14.3	118/14.0	123/13.4	125/13.1	124/12.6	120/12.6	115/12.6	109/12.6	109/12.6
	17	080/17.5	082/17.0	087/17.0	094/16.5	102/15.7	109/15.3	113/15.0	115/14.5	114/14.8	112/14.3	108/14.3	104/14.3	104/14.3
	19	078/19.0	079/19.0	083/18.5	089/18.0	095/17.5	100/17.0	104/16.5	106/16.5	106/16.5	104/16.5	102/16.5	099/16.5	099/16.5
10	21	075/19.6	076/19.6	079/19.6	083/19.6	088/19.0	093/18.5	096/18.0	098/18.0	098/17.5	097/17.0	095/17.0	093/16.5	093/16.5
	7	031/12.8	045/9.5	073/7.0	104/6.3	133/5.3	155/5.3	169/5.3	173/5.3	167/6.3	153/6.4	134/6.4	114/6.5	105/6.7
	9	048/14.3	057/14.3	079/11.6	106/9.2	132/8.3	154/7.7	169/7.5	176/7.3	175/7.3	167/7.3	159/7.3	137/7.5	137/7.5
	11	060/15.3	066/15.3	082/15.0	103/12.6	124/11.2	142/10.5	159/9.8	163/9.5	164/9.2	160/9.0	153/9.0	143/9.0	143/9.0
	13	067/16.5	071/16.1	083/16.1	098/15.3	115/14.3	130/12.6	141/12.1	148/11.6	150/11.2	149/11.2	145/11.2	139/11.2	139/11.2
	15	070/18.0	073/17.5	081/17.5	093/16.5	106/15.7	118/14.6	124/13.7	134/13.4	137/12.6	135/12.6	131/12.6	124/12.6	124/12.6
	17	070/19.0	072/19.0	079/18.5	088/18.0	094/17.5	104/16.1	116/15.3	122/15.0	125/14.6	125/14.3	123/14.3	122/14.3	122/14.3
15	19	069/20.3	070/20.3	075/19.6	083/19.6	091/19.5	099/17.5	106/17.0	111/16.5	114/16.1	115/16.5	114/16.1	113/16.1	113/16.1
	21	067/21.7	068/21.7	072/21.7	078/20.9	085/20.3	092/20.3	098/19.5	102/18.0	105/17.5	106/17.0	106/17.0	106/16.5	105/16.5
	7	026/14.3	040/8.1	070/7.3	103/6.3	136/5.3	160/5.3	176/5.4	184/5.5	181/6.7	169/6.7	151/6.8	133/7.0	124/7.0
	9	039/17.5	049/17.5	074/11.6	104/8.5	136/7.5	161/7.1	182/7.1	195/7.1	200/7.3	198/7.3	190/7.3	174/7.5	174/7.5
	11	050/20.3	057/20.3	075/19.6	099/12.1	124/11.2	148/9.2	168/9.0	182/8.8	189/7.9	192/7.9	190/7.9	185/7.9	185/7.9
	13	057/20.3	062/20.3	075/20.3	093/20.3	114/12.6	133/12.6	150/12.1	163/11.2	171/10.8	175/10.1	176/9.8	174/9.5	174/9.5
	15	060/20.3	064/20.3	073/20.3	088/20.3	104/15.3	121/15.0	135/13.4	146/13.1	154/12.8	158/12.6	160/12.6	160/12.6	160/12.6
20	17	061/21.7	064/21.7	071/20.9	083/20.3	096/20.3	109/17.5	122/15.3	131/15.0	139/14.3	143/14.3	145/14.3	146/14.3	146/14.3
	19	060/22.4	062/22.4	069/22.4	078/21.7	089/20.3	100/18.0	110/17.5	119/17.0	125/16.5	129/16.1	131/15.7	132/16.1	132/16.1
	21	059/24.2	061/24.2	066/23.3	073/22.4	083/20.3	092/20.3	101/19.6	108/18.0	114/17.5	118/17.0	120/16.5	121/16.5	121/16.5
	7	021/13.4	037/13.4	068/6.3	102/5.3	135/5.3	163/5.3	182/5.5	191/5.7	189/6.7	179/6.8	161/7.1	136/7.3	136/7.3
	9	032/19.0	043/19.0	069/19.0	102/8.5	137/7.1	169/7.1	193/7.1	201/7.5	228/7.5	226/7.7	222/7.7	217/7.7	214/7.7
	11	041/23.3	049/23.3	069/19.0	096/19.0	126/9.8	155/8.7	181/7.9	201/7.9	216/8.1	227/8.1	227/8.1	227/8.1	227/8.1
	13	047/23.3	053/23.3	068/23.3	089/23.3	114/13.4	139/11.6	161/11.2	181/10.1	195/8.3	205/8.3	210/8.3	213/8.3	213/8.3
25	15	051/26.2	055/26.2	067/26.2	084/23.3	104/15.0	124/14.3	144/13.7	160/13.4	173/12.6	188/11.6	189/11.2	191/8.5	192/8.5
	17	052/26.2	056/26.2	065/26.2	078/26.2	095/19.0	112/15.7	128/15.3	143/14.6	154/14.3	163/14.3	168/14.3	171/14.3	172/14.3
	19	053/27.3	055/27.3	062/27.3	074/26.2	087/23.3	102/19.0	115/17.0	128/16.5	138/16.5	146/15.7	151/15.3	154/14.6	154/14.6
	21	052/27.3	054/27.3	060/27.3	070/27.3	081/23.3	093/20.3	105/19.6	116/19.0	125/17.5	131/17.0	136/16.5	139/16.5	139/16.5
	7	018/16.5	035/16.5	066/16.5	102/16.5	136/6.5	164/6.7	184/6.7	194/6.7	193/7.0	182/7.1	165/7.3	146/7.5	138/7.5
	9	026/16.5	038/16.5	057/16.5	087/16.5	120/16.5	154/7.5	176/7.5	200/7.7	224/7.9	248/7.9	246/8.1	241/8.1	241/8.1
	11	034/16.5	042/16.5	065/16.5	095/16.5	129/16.5	163/7.9	194/8.1	220/8.1	247/8.3	268/8.3	264/8.3	264/8.3	264/8.3
30	13	039/33.1	045/33.1	063/33.1	087/33.1	116/16.5	145/16.5	173/8.7	198/8.7	218/8.5	233/8.5	247/8.5	249/8.5	249/8.5
	15	043/33.1	049/33.1	061/33.1	081/33.1	104/16.5	129/16.5	153/16.5	175/12.6	193/8.7	207/8.7	217/8.7	224/8.7	224/8.7
	17	045/33.1	049/33.1	059/33.1	075/33.1	095/16.5	115/16.5	136/16.5	155/14.3	171/14.0	184/13.7	192/12.8	199/8.7	199/8.7
	19	046/33.1	049/33.1	057/33.1	070/33.1	087/16.5	104/16.5	122/16.5	138/16.5	151/15.0	167/14.6	175/14.6	177/14.6	177/14.6
	21	046/33.1	049/33.1	056/33.1	066/33.1	080/26.2	095/20.3	110/18.0	124/16.5	136/16.5	146/16.5	151/16.5	159/16.5	159/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

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DE 1078

SHORTESTED
RMS VER ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
(ACC. X 100)
CENTER OF GRAVITY - 209.5 FT FORWARD OF AP AND 15.5 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.90/8.5	.13/7.0	.23/6.3	.33/5.7	.43/5.1	.53/4.5	.63/3.9	.73/3.3	.83/2.7	.93/2.1	.103/2.1	.113/2.1	.123/2.1	
	9	.11/11.2	.14/12.1	.17/12.1	.20/12.1	.23/12.1	.26/12.1	.29/12.1	.32/12.1	.35/12.1	.38/12.1	.41/12.1	.44/12.1	.47/12.1	
	11	.12/12.1	.15/12.1	.18/12.1	.21/12.1	.24/12.1	.27/12.1	.30/12.1	.33/12.1	.36/12.1	.39/12.1	.42/12.1	.45/12.1	.48/12.1	
	13	.13/13.4	.16/14.3	.19/15.2	.22/16.1	.25/17.0	.28/17.9	.31/18.8	.34/19.7	.37/20.6	.40/21.5	.43/22.4	.46/23.3	.49/24.2	
	15	.14/14.3	.17/15.2	.20/16.1	.23/17.0	.26/17.9	.29/18.8	.32/19.7	.35/20.6	.38/21.5	.41/22.4	.44/23.3	.47/24.2	.50/25.1	
	17	.15/15.7	.18/16.6	.21/17.5	.24/18.4	.27/19.3	.30/20.2	.33/21.1	.36/22.0	.39/22.9	.42/23.8	.45/24.7	.48/25.6	.51/26.5	
	19	.16/16.5	.19/17.4	.22/18.3	.25/19.2	.28/20.1	.31/21.0	.34/21.9	.37/22.8	.40/23.7	.43/24.6	.46/25.5	.49/26.4	.52/27.3	
10	7	.06/9.5	.12/7.0	.22/6.3	.32/5.7	.42/5.1	.52/4.5	.62/3.9	.72/3.3	.82/2.7	.92/2.1	.102/2.1	.112/2.1	.122/2.1	
	9	.08/14.3	.11/15.0	.14/15.7	.17/16.6	.20/17.5	.23/18.4	.26/19.3	.29/20.2	.32/21.1	.35/22.0	.38/22.9	.41/23.8	.44/24.7	
	11	.09/15.0	.12/15.7	.15/16.6	.18/17.5	.21/18.4	.24/19.3	.27/20.2	.30/21.1	.33/22.0	.36/22.9	.39/23.8	.42/24.7	.45/25.6	
	13	.10/15.7	.13/16.6	.16/17.5	.19/18.4	.22/19.3	.25/20.2	.28/21.1	.31/22.0	.34/22.9	.37/23.8	.40/24.7	.43/25.6	.46/26.5	
	15	.11/17.0	.14/17.9	.17/18.8	.20/19.7	.23/20.6	.26/21.5	.29/22.4	.32/23.3	.35/24.2	.38/25.1	.41/26.0	.44/26.9	.47/27.8	
	17	.12/18.0	.15/18.9	.18/19.8	.21/20.7	.24/21.6	.27/22.5	.30/23.4	.33/24.3	.36/25.2	.39/26.1	.42/27.0	.45/27.9	.48/28.8	
	19	.13/18.5	.16/19.4	.19/20.3	.22/21.2	.25/22.1	.28/23.0	.31/23.9	.34/24.8	.37/25.7	.40/26.6	.43/27.5	.46/28.4	.49/29.3	
15	7	.05/7.9	.10/7.3	.21/6.3	.31/5.7	.41/5.1	.51/4.5	.61/3.9	.71/3.3	.81/2.7	.91/2.1	.101/2.1	.111/2.1	.121/2.1	
	9	.06/14.6	.09/15.5	.12/16.4	.15/17.3	.18/18.2	.21/19.1	.24/20.0	.27/20.9	.30/21.8	.33/22.7	.36/23.6	.39/24.5	.42/25.4	
	11	.07/17.5	.10/18.4	.13/19.3	.16/20.2	.19/21.1	.22/22.0	.25/22.9	.28/23.8	.31/24.7	.34/25.6	.37/26.5	.40/27.4	.43/28.3	
	13	.08/20.3	.11/21.2	.14/22.1	.17/23.0	.20/23.9	.23/24.8	.26/25.7	.29/26.6	.32/27.5	.35/28.4	.38/29.3	.41/30.2	.44/31.1	
	15	.09/22.0	.12/23.0	.15/23.9	.18/24.8	.21/25.7	.24/26.6	.27/27.5	.30/28.4	.33/29.3	.36/30.2	.39/31.1	.42/32.0	.45/32.9	
	17	.10/23.3	.13/24.3	.16/25.2	.19/26.1	.22/27.0	.25/27.9	.28/28.8	.31/29.7	.34/30.6	.37/31.5	.40/32.4	.43/33.3	.46/34.2	
	19	.11/24.7	.14/25.6	.17/26.5	.20/27.4	.23/28.3	.26/29.2	.29/30.1	.32/31.0	.35/31.9	.38/32.8	.41/33.7	.44/34.6	.47/35.5	
20	7	.04/13.4	.07/14.3	.10/15.2	.13/16.1	.16/17.0	.19/17.9	.22/18.8	.25/19.7	.28/20.6	.31/21.5	.34/22.4	.37/23.3	.40/24.2	
	9	.05/19.0	.08/20.0	.11/21.0	.14/22.0	.17/23.0	.20/24.0	.23/25.0	.26/26.0	.29/27.0	.32/28.0	.35/29.0	.38/30.0	.41/31.0	
	11	.06/22.3	.09/23.3	.12/24.3	.15/25.3	.18/26.3	.21/27.3	.24/28.3	.27/29.3	.30/30.3	.33/31.3	.36/32.3	.39/33.3	.42/34.3	
	13	.07/25.3	.10/26.3	.13/27.3	.16/28.3	.19/29.3	.22/30.3	.25/31.3	.28/32.3	.31/33.3	.34/34.3	.37/35.3	.40/36.3	.43/37.3	
	15	.08/28.3	.11/29.3	.14/30.3	.17/31.3	.20/32.3	.23/33.3	.26/34.3	.29/35.3	.32/36.3	.35/37.3	.38/38.3	.41/39.3	.44/40.3	
	17	.09/31.3	.12/32.3	.15/33.3	.18/34.3	.21/35.3	.24/36.3	.27/37.3	.30/38.3	.33/39.3	.36/40.3	.39/41.3	.42/42.3	.45/43.3	
	19	.10/34.3	.13/35.3	.16/36.3	.19/37.3	.22/38.3	.25/39.3	.28/40.3	.31/41.3	.34/42.3	.37/43.3	.40/44.3	.43/45.3	.46/46.3	
25	7	.03/16.5	.06/17.4	.09/18.3	.12/19.2	.15/20.1	.18/21.0	.21/21.9	.24/22.8	.27/23.7	.30/24.6	.33/25.5	.36/26.4	.39/27.3	
	9	.03/23.3	.06/24.2	.09/25.1	.12/26.0	.15/26.9	.18/27.8	.21/28.7	.24/29.6	.27/30.5	.30/31.4	.33/32.3	.36/33.2	.39/34.1	
	11	.04/26.3	.07/27.2	.10/28.1	.13/29.0	.16/29.9	.19/30.8	.22/31.7	.25/32.6	.28/33.5	.31/34.4	.34/35.3	.37/36.2	.40/37.1	
	13	.05/29.3	.08/30.2	.11/31.1	.14/32.0	.17/32.9	.20/33.8	.23/34.7	.26/35.6	.29/36.5	.32/37.4	.35/38.3	.38/39.2	.41/40.1	
	15	.06/32.3	.09/33.2	.12/34.1	.15/35.0	.18/35.9	.21/36.8	.24/37.7	.27/38.6	.30/39.5	.33/40.4	.36/41.3	.39/42.2	.42/43.1	
	17	.07/35.3	.10/36.2	.13/37.1	.16/38.0	.19/38.9	.22/39.8	.25/40.7	.28/41.6	.31/42.5	.34/43.4	.37/44.3	.40/45.2	.43/46.1	
	19	.08/38.3	.11/39.2	.14/40.1	.17/41.0	.20/41.9	.23/42.8	.26/43.7	.29/44.6	.32/45.5	.35/46.4	.38/47.3	.41/48.2	.44/49.1	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUDAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHOWTCHESSED
RMS LAT DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 10.5 FT FROM HL

V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
SHIP HEADING ANGLE IN DEGREES														
5	7	101/ 9.2	109/ 9.2	127/ 8.7	147/ 8.7	164/ 8.3	173/ 8.3	174/ 7.9	167/ 7.5	152/ 7.1	132/ 7.0	110/ 6.4	091/ 6.8	084/ 6.8
9	145/11.2	151/10.8	167/10.5	185/10.5	199/ 9.2	206/ 9.0	205/ 8.7	205/ 8.7	195/ 8.7	178/ 8.3	157/ 8.3	135/ 8.1	119/ 8.1	112/ 8.1
11	166/12.1	171/12.1	185/12.1	191/12.1	206/12.1	213/12.1	214/11.6	203/11.6	193/11.2	164/11.2	147/ 8.7	126/ 8.7	122/ 8.7	122/ 8.7
13	172/13.7	179/13.7	191/13.7	206/13.4	217/13.4	223/13.4	218/13.1	208/13.1	188/12.9	167/12.6	147/12.6	131/12.1	131/12.1	126/12.1
15	172/15.3	177/15.3	190/15.3	206/15.3	218/15.3	223/15.3	223/15.0	208/15.0	190/14.6	169/14.6	147/14.3	132/14.0	132/14.0	126/14.0
17	167/17.0	173/17.0	186/17.0	203/17.0	216/17.0	221/17.0	219/17.0	204/17.0	190/16.5	169/16.5	147/16.5	131/15.3	131/15.3	125/15.0
19	161/19.0	167/19.0	182/19.0	199/19.0	213/19.0	218/19.0	217/18.5	207/18.5	190/18.0	169/18.0	147/17.5	130/17.0	130/17.0	123/17.0
21	156/19.6	163/19.6	178/20.9	196/20.9	210/20.9	216/20.9	217/20.3	207/20.3	190/20.3	169/20.3	147/19.6	124/19.6	124/19.6	118/19.6
10	7	132/12.1	139/12.1	155/10.8	172/10.8	184/ 9.0	184/ 9.0	182/ 8.7	168/ 8.7	147/ 7.3	122/ 7.1	098/ 7.0	079/ 7.0	072/ 7.0
9	190/13.4	195/13.4	208/13.1	221/12.8	229/12.5	228/12.1	228/12.1	218/12.2	198/ 9.2	173/ 9.0	146/ 8.5	122/ 8.3	105/ 8.3	099/ 8.1
11	213/14.0	217/14.0	228/13.7	239/13.7	245/13.4	242/13.1	242/13.1	229/12.6	207/12.1	181/11.5	154/10.8	130/ 9.2	114/ 9.2	104/ 9.2
13	215/15.0	219/15.0	229/14.6	240/14.6	246/14.3	243/14.3	243/14.3	230/14.0	209/13.4	183/13.4	156/12.6	133/12.6	116/12.6	110/12.6
15	208/16.1	212/16.1	223/16.1	235/16.1	241/15.7	241/15.7	241/15.7	229/15.3	210/15.3	184/15.0	156/14.6	134/14.6	117/14.3	111/14.3
17	197/17.5	202/17.5	214/17.5	227/17.5	236/17.5	236/17.5	236/17.5	227/17.5	208/17.5	184/17.0	159/16.5	134/16.5	117/16.5	110/16.5
19	187/19.0	192/19.0	205/19.0	220/19.0	230/19.0	230/19.0	230/19.0	224/19.0	207/19.0	184/18.5	159/18.0	135/18.0	116/17.5	109/17.0
21	179/20.9	184/20.9	198/20.9	214/20.9	225/20.9	226/20.9	226/20.9	222/20.9	207/20.3	185/20.3	160/20.3	135/20.3	116/19.6	109/19.6
15	7	237/14.3	230/14.3	237/14.3	243/14.3	243/14.3	233/14.3	212/14.3	183/14.3	149/10.5	116/ 7.7	088/ 7.1	059/ 7.0	062/ 7.0
9	284/17.5	281/17.5	284/17.5	290/17.5	294/17.5	294/17.5	284/17.5	269/17.5	241/17.5	215/17.5	182/17.5	149/17.5	102/ 9.5	086/ 9.5
11	273/17.5	276/17.5	283/17.5	289/17.5	291/17.5	291/17.5	281/17.5	267/17.5	240/17.5	213/17.5	182/17.5	149/17.5	102/ 9.5	086/ 9.5
13	254/17.5	258/17.5	266/17.5	271/17.5	276/17.5	276/17.5	266/17.5	250/17.5	223/17.5	193/17.5	160/17.5	123/17.5	105/17.5	098/17.5
15	235/17.5	239/17.5	249/17.5	254/17.5	259/17.5	259/17.5	249/17.5	233/17.5	206/17.5	176/17.5	143/17.5	106/17.5	079/17.5	072/17.5
17	219/19.6	223/19.6	234/19.6	240/19.6	246/19.6	246/19.6	234/19.6	218/19.6	191/19.0	161/19.0	124/19.0	094/19.0	067/19.0	060/19.0
19	206/19.6	211/19.6	223/19.6	230/19.6	236/19.6	236/19.6	223/19.6	207/19.6	180/19.0	152/20.3	126/20.3	094/19.6	067/19.6	060/19.6
20	7	340/19.0	340/19.0	379/13.4	373/13.4	357/13.4	327/13.4	291/13.4	246/13.4	166/13.4	116/13.4	081/ 7.9	061/ 7.0	054/ 6.8
9	411/19.0	411/19.0	410/19.0	405/19.0	397/19.0	387/19.0	357/19.0	309/19.0	249/19.0	187/13.4	136/13.4	102/ 8.7	083/ 8.5	076/ 8.3
11	389/19.0	390/19.0	391/19.0	384/19.0	375/19.0	364/19.0	334/19.0	287/19.0	227/19.0	191/13.4	143/13.4	110/10.1	092/ 9.8	085/ 9.5
13	352/23.3	354/23.3	357/19.0	351/19.0	343/19.0	334/19.0	304/19.0	257/19.0	197/19.0	168/13.4	143/13.4	113/12.8	094/11.6	088/11.2
15	317/23.3	319/23.3	324/23.3	327/23.3	322/23.3	313/23.3	283/23.3	236/23.3	176/23.3	146/19.0	145/15.3	114/15.0	095/15.0	088/15.0
17	287/23.3	289/23.3	295/23.3	302/23.3	300/23.3	291/23.3	261/23.3	214/23.3	154/23.3	133/19.0	145/17.5	115/17.0	095/17.0	087/17.0
19	262/23.3	265/23.3	274/23.3	281/23.3	282/23.3	273/23.3	243/23.3	196/23.3	136/23.3	111/20.3	146/19.6	116/20.3	095/19.0	088/19.6
21	243/23.3	247/23.3	256/23.3	265/23.3	265/23.3	256/23.3	226/23.3	179/23.3	120/23.3	101/20.3	147/20.3	118/20.3	096/20.3	088/20.3
25	7	454/16.5	457/16.5	476/16.5	480/16.5	468/16.5	432/16.5	371/16.5	302/16.5	204/16.5	126/16.5	076/ 9.0	054/ 7.0	047/ 7.0
9	518/16.5	519/16.5	520/16.5	516/16.5	506/16.5	496/16.5	464/16.5	386/16.5	302/16.5	214/16.5	140/16.5	094/ 9.0	074/ 8.5	067/ 8.5
11	471/16.5	473/16.5	477/16.5	472/16.5	462/16.5	452/16.5	420/16.5	362/16.5	287/16.5	209/16.5	144/16.5	103/10.5	083/10.1	074/ 9.8
13	431/16.5	434/16.5	438/16.5	433/16.5	423/16.5	413/16.5	381/16.5	323/16.5	268/16.5	200/16.5	143/16.5	106/12.5	085/11.6	079/11.6
15	391/16.5	394/16.5	398/16.5	393/16.5	383/16.5	373/16.5	341/16.5	309/16.5	254/16.5	194/16.5	143/16.5	107/15.0	086/14.8	079/14.3
17	351/16.5	354/16.5	358/16.5	353/16.5	343/16.5	333/16.5	301/16.5	279/16.5	240/16.5	188/16.5	142/16.5	108/17.0	087/17.0	079/16.5
19	319/16.5	322/16.5	326/16.5	321/16.5	311/16.5	301/16.5	269/16.5	237/16.5	182/16.5	155/16.5	143/16.5	104/19.4	087/19.4	079/19.4
21	293/16.5	296/16.5	300/16.5	295/16.5	285/16.5	275/16.5	243/16.5	211/16.5	156/16.5	131/16.5	144/20.9	111/20.3	089/20.3	081/20.3

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

OR 1074

SHORTCRESTED
HMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OE
AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM HL

VIT	0	SHIP HEADING ANGLE IN DEGREES											
		15	30	45	60	75	90	105	120	135	150	165	180
5	7	.075/9.0	.083/8.7	.102/8.3	.124/7.9	.157/7.5	.182/7.1	.159/6.7	.149/6.5	.131/6.5	.110/6.5	.091/6.5	.083/6.5
	9	.092/10.5	.098/9.2	.114/8.3	.132/7.9	.158/7.5	.183/7.1	.159/6.7	.149/6.5	.131/6.5	.110/6.5	.091/6.5	.083/6.5
	11	.094/11.6	.099/11.6	.111/11.6	.125/11.2	.145/10.7	.163/10.3	.159/9.8	.149/9.8	.131/9.8	.110/9.8	.091/9.8	.083/9.8
	13	.089/12.6	.093/12.6	.104/12.6	.124/12.1	.141/12.1	.158/11.6	.159/11.6	.149/11.6	.131/11.6	.110/11.6	.091/11.6	.083/11.6
	15	.081/13.7	.085/13.7	.103/13.7	.124/13.7	.141/13.7	.158/13.4	.159/13.4	.149/13.4	.131/13.4	.110/13.4	.091/13.4	.083/13.4
	17	.074/15.0	.077/15.0	.094/15.0	.121/15.0	.146/15.0	.171/15.0	.153/14.6	.146/14.6	.128/14.6	.107/14.6	.087/14.6	.074/14.6
	19	.066/15.7	.069/15.7	.084/15.7	.111/15.7	.136/15.7	.161/15.7	.143/15.0	.136/15.0	.118/15.0	.097/15.0	.077/15.0	.066/15.7
10	21	.060/17.0	.062/17.5	.076/17.0	.101/17.0	.126/17.0	.151/17.0	.133/16.5	.126/16.5	.108/16.5	.087/16.5	.067/16.5	.054/16.5
	7	.080/10.8	.088/10.8	.106/9.0	.127/8.7	.157/8.7	.181/8.7	.157/8.0	.146/8.0	.128/8.0	.107/8.0	.087/8.0	.079/8.7
	9	.101/12.5	.107/12.5	.124/12.5	.141/12.1	.160/11.6	.183/11.2	.158/10.7	.148/10.7	.130/10.7	.109/10.7	.089/10.7	.081/10.8
	11	.097/14.3	.101/14.3	.119/14.3	.131/13.7	.149/13.4	.166/13.4	.148/12.6	.139/12.6	.121/12.6	.100/12.6	.080/12.6	.072/12.6
	13	.097/14.3	.101/14.3	.119/14.3	.131/13.7	.149/13.4	.166/13.4	.148/12.6	.139/12.6	.121/12.6	.100/12.6	.080/12.6	.072/12.6
	15	.088/15.0	.091/15.0	.105/15.0	.120/15.0	.134/15.0	.150/14.3	.134/13.4	.126/13.4	.108/13.4	.087/13.4	.067/13.4	.059/13.7
	17	.079/15.7	.082/15.7	.097/15.7	.112/15.7	.126/15.7	.141/15.7	.126/15.0	.118/15.0	.100/15.0	.079/15.0	.059/15.0	.051/15.7
15	19	.071/16.5	.073/16.5	.087/16.5	.102/16.5	.116/16.5	.131/16.5	.116/16.5	.108/16.5	.090/16.5	.069/16.5	.049/16.5	.041/16.5
	21	.063/17.5	.066/17.5	.079/17.5	.104/17.5	.123/17.5	.146/17.5	.125/16.5	.116/16.5	.097/16.5	.076/16.5	.056/16.5	.048/16.5
	7	.089/14.3	.096/14.3	.114/14.3	.133/14.3	.149/14.3	.169/13.5	.154/13.5	.140/13.5	.121/13.5	.100/13.5	.082/13.5	.074/13.7
	9	.112/17.5	.117/17.5	.130/17.5	.145/17.5	.160/17.5	.175/17.5	.154/16.5	.143/16.5	.124/16.5	.103/16.5	.082/16.5	.074/16.5
	11	.104/17.5	.107/17.5	.120/17.5	.134/17.5	.148/17.5	.162/17.5	.143/16.5	.134/16.5	.115/16.5	.094/16.5	.074/16.5	.066/16.5
	13	.096/17.5	.099/17.5	.112/17.5	.126/17.5	.140/17.5	.154/17.5	.134/16.5	.125/16.5	.106/16.5	.085/16.5	.065/16.5	.057/16.5
	15	.088/17.5	.091/17.5	.104/17.5	.118/17.5	.132/17.5	.146/17.5	.125/16.5	.116/16.5	.097/16.5	.076/16.5	.056/16.5	.048/16.5
20	17	.079/17.5	.082/17.5	.095/17.5	.109/17.5	.123/17.5	.137/17.5	.116/16.5	.107/16.5	.088/16.5	.067/16.5	.047/16.5	.039/17.5
	19	.074/17.5	.076/17.5	.087/17.5	.099/17.5	.111/17.5	.124/17.5	.108/16.5	.099/16.5	.080/16.5	.059/16.5	.039/16.5	.031/17.5
	21	.066/17.5	.068/17.5	.079/17.5	.091/17.5	.096/17.5	.107/17.5	.089/17.5	.089/17.5	.070/17.5	.050/17.5	.030/17.5	.022/17.5
	7	.095/13.4	.103/13.4	.120/13.4	.137/13.4	.154/13.4	.171/13.4	.153/13.4	.143/13.4	.124/13.4	.103/13.4	.082/13.4	.074/13.7
	9	.115/19.0	.121/19.0	.135/19.0	.150/19.0	.167/19.0	.181/19.0	.156/18.0	.146/18.0	.127/18.0	.106/18.0	.085/18.0	.077/18.0
	11	.113/19.0	.118/19.0	.132/19.0	.147/19.0	.162/19.0	.177/19.0	.156/18.0	.146/18.0	.127/18.0	.106/18.0	.085/18.0	.077/18.0
	13	.104/19.0	.109/19.0	.123/19.0	.138/19.0	.153/19.0	.168/19.0	.143/18.0	.134/18.0	.115/18.0	.094/18.0	.074/18.0	.066/18.0
25	15	.094/19.0	.099/19.0	.113/19.0	.128/19.0	.143/19.0	.158/19.0	.138/18.0	.129/18.0	.110/18.0	.089/18.0	.069/18.0	.061/18.0
	17	.083/23.3	.086/23.3	.099/23.3	.114/23.3	.129/23.3	.144/23.3	.124/22.6	.115/22.6	.096/22.6	.075/22.6	.055/22.6	.047/22.6
	19	.074/23.3	.077/23.3	.090/23.3	.105/23.3	.120/23.3	.135/23.3	.114/22.6	.105/22.6	.086/22.6	.065/22.6	.045/22.6	.037/23.3
	21	.066/23.3	.069/23.3	.082/23.3	.097/23.3	.112/23.3	.127/23.3	.106/22.6	.097/22.6	.078/22.6	.057/22.6	.037/22.6	.029/23.3
	7	.086/16.5	.095/16.5	.115/16.5	.135/16.5	.154/16.5	.171/16.5	.150/16.5	.140/16.5	.121/16.5	.100/16.5	.079/16.5	.071/16.5
	9	.102/16.5	.109/16.5	.126/16.5	.144/16.5	.162/16.5	.180/16.5	.153/16.5	.143/16.5	.124/16.5	.103/16.5	.082/16.5	.074/16.5
	11	.102/16.5	.104/16.5	.121/16.5	.136/16.5	.152/16.5	.167/16.5	.141/16.5	.132/16.5	.113/16.5	.092/16.5	.072/16.5	.064/16.5

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078														
SHORT-TESTED														
RMS LAT ACC IN GYS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
OF														
(ACC. X 100)														
AFT PERPENDICULAR AT MAIN DECK - 10.5 FT FROM HL														
SHIP HEADING ANGLE IN DEGREES														
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	182/ 8.7	211/ 8.3	240/ 7.9	360/ 7.5	434/ 7.0	489/ 6.3	519/ 6.3	520/ 6.3	492/ 6.3	439/ 6.3	370/ 6.3	302/ 6.3	272/ 6.3
	9	195/ 9.2	215/ 9.2	265/ 8.7	363/ 8.3	427/ 7.9	451/ 7.5	453/ 7.1	432/ 6.8	342/ 6.8	392/ 6.8	340/ 6.8	293/ 6.8	273/ 6.8
	11	179/11.2	194/11.6	230/ 9.2	275/ 8.7	317/ 8.7	350/ 8.5	369/ 8.3	370/ 7.9	354/ 7.7	324/ 7.5	285/ 7.5	251/ 7.5	237/ 7.5
	13	157/11.6	164/12.1	194/11.6	228/11.2	261/ 8.7	286/ 8.7	300/ 8.5	300/ 8.3	287/ 8.1	264/ 7.9	234/ 7.9	208/ 7.9	198/ 7.9
	15	134/12.1	143/12.1	164/12.1	190/12.1	216/11.6	236/ 8.7	246/ 8.5	246/ 8.3	236/ 8.3	216/ 8.1	193/ 8.1	173/ 8.1	164/ 8.1
	17	115/12.8	121/12.8	134/12.8	160/12.6	181/12.6	197/12.6	205/12.1	205/ 8.5	196/ 8.3	180/ 8.3	161/ 8.1	144/ 8.1	137/ 8.1
	19	98/13.1	104/13.1	118/13.1	139/13.1	153/13.1	166/13.1	173/13.1	172/12.8	165/ 8.3	151/ 8.3	135/ 8.3	122/ 8.3	116/ 8.3
	21	85/13.4	89/13.7	102/13.7	117/14.0	131/14.0	142/14.0	148/14.0	147/13.7	141/13.4	129/ 8.3	115/ 8.3	104/ 8.3	99/ 8.3
10	7	163/ 8.7	192/ 8.7	262/ 8.7	344/ 7.9	422/ 7.0	482/ 6.7	517/ 6.7	523/ 6.3	500/ 6.3	451/ 6.3	383/ 6.3	317/ 6.3	287/ 6.3
	9	179/12.6	199/12.6	249/10.8	310/ 9.0	371/ 8.7	420/ 7.1	451/ 7.1	459/ 7.1	443/ 7.0	407/ 7.0	358/ 7.0	312/ 7.1	293/ 7.1
	11	168/13.4	182/13.1	217/12.8	253/12.1	294/11.2	346/ 8.7	369/ 8.5	376/ 7.5	365/ 7.5	338/ 7.5	302/ 7.5	269/ 7.5	256/ 7.5
	13	147/13.7	161/13.7	185/13.4	220/12.8	254/12.6	283/12.1	301/ 8.7	305/ 8.5	296/ 8.3	275/ 7.9	248/ 7.9	223/ 7.7	213/ 7.9
	15	127/14.0	135/14.0	156/14.0	184/13.4	211/13.7	233/12.6	247/12.1	250/ 8.7	242/ 8.5	225/ 8.3	203/ 8.1	184/ 8.1	176/ 8.1
	17	108/14.3	115/14.3	132/14.3	155/14.0	177/14.3	195/13.4	205/13.1	208/12.6	201/ 8.7	187/ 8.3	169/ 8.3	153/ 8.3	147/ 8.3
	19	93/14.3	99/14.3	113/14.3	132/14.3	150/14.0	165/13.7	173/13.4	175/13.4	169/ 8.7	157/ 8.5	142/ 8.3	129/ 8.3	123/ 8.3
	21	80/14.6	85/14.6	97/14.6	113/14.6	129/14.6	141/14.3	148/14.3	149/14.0	144/13.7	133/ 8.5	121/ 8.5	109/ 8.5	105/ 8.5
15	7	147/14.3	175/14.3	244/14.3	328/14.3	408/ 7.3	471/ 7.1	511/ 7.0	521/ 6.8	502/ 6.4	456/ 6.3	391/ 6.3	326/ 6.3	297/ 6.3
	9	163/14.3	182/14.3	232/14.3	295/14.3	354/14.3	412/ 7.7	447/ 7.5	460/ 7.3	449/ 7.1	416/ 7.1	370/ 7.0	326/ 7.0	307/ 7.1
	11	153/14.5	167/14.5	173/14.5	209/14.3	246/14.3	278/14.3	300/13.8	308/ 8.1	302/ 8.1	283/ 8.1	259/ 8.1	234/ 8.1	224/ 8.1
	13	134/14.5	145/14.5	161/14.5	175/14.3	194/14.3	223/14.3	246/14.3	252/ 8.3	247/ 8.3	232/ 8.1	211/ 8.1	193/ 8.1	185/ 8.1
	15	115/14.5	124/14.5	146/14.5	161/14.5	171/14.5	191/14.3	205/14.3	209/14.3	205/ 8.3	192/ 8.3	175/ 8.3	160/ 8.3	154/ 8.3
	17	99/14.5	106/14.5	124/14.5	145/14.5	162/14.5	182/14.3	193/14.3	193/14.3	172/14.3	161/ 8.3	147/ 8.3	134/ 8.3	129/ 8.3
	19	85/14.5	91/14.5	106/14.5	126/14.5	145/14.5	162/14.3	173/14.3	175/14.3	166/14.3	151/ 8.3	134/ 8.3	129/ 8.3	129/ 8.3
	21	73/14.5	78/14.5	91/14.5	108/14.5	125/14.5	143/14.3	157/14.3	150/14.3	146/14.3	137/ 8.5	125/ 8.5	114/ 8.3	109/ 8.3
20	7	127/13.4	156/13.4	225/13.4	311/13.4	394/13.4	461/13.4	505/13.4	519/ 5.7	504/ 5.7	461/ 6.3	398/ 6.3	334/ 6.3	304/ 6.3
	9	137/13.4	158/13.4	209/13.4	276/13.4	346/13.4	402/13.4	443/13.4	460/ 7.9	453/ 7.7	424/ 6.8	380/ 6.8	337/ 6.8	318/ 7.0
	11	128/13.0	143/13.0	182/13.0	233/13.0	286/13.0	332/13.0	365/13.0	389/13.0	376/ 8.1	355/ 7.9	323/ 7.7	293/ 7.7	280/ 7.7
	13	113/13.0	124/13.0	155/13.0	194/13.0	235/13.0	271/13.0	297/13.0	309/13.0	307/ 8.3	290/ 8.3	266/ 8.3	243/ 8.3	234/ 8.3
	15	97/13.0	107/13.0	131/13.0	163/13.0	195/13.0	224/13.0	244/13.0	253/13.0	251/ 8.5	238/ 8.5	218/ 8.5	200/ 8.5	193/ 8.5
	17	84/13.0	92/13.0	112/13.0	141/13.0	164/13.0	187/13.0	203/13.0	210/13.0	208/13.0	196/ 8.7	180/ 8.7	166/ 8.7	160/ 8.7
	19	73/13.0	79/13.0	93/13.0	111/13.0	133/13.0	153/13.0	171/13.0	177/13.0	174/13.0	165/ 8.7	151/ 8.7	139/ 8.7	134/ 8.7
	21	64/13.0	69/13.0	83/13.0	101/13.0	119/13.0	135/13.0	146/13.0	150/13.4	148/13.4	140/ 8.7	128/ 8.7	118/ 8.7	113/ 8.7
25	7	102/16.5	131/16.5	202/16.5	290/16.5	376/16.5	447/16.5	494/16.5	513/16.5	501/ 6.3	461/ 6.3	400/ 6.3	337/ 6.3	307/ 6.3
	9	106/16.5	124/16.5	143/16.5	163/16.5	182/16.5	201/16.5	220/16.5	237/16.5	234/16.5	227/ 7.1	206/ 7.1	187/ 7.1	171/ 7.1
	11	100/16.5	117/16.5	134/16.5	151/16.5	168/16.5	185/16.5	202/16.5	219/16.5	216/16.5	209/ 7.5	188/ 7.5	169/ 7.5	154/ 7.5
	13	90/16.5	103/16.5	115/16.5	132/16.5	148/16.5	164/16.5	180/16.5	196/16.5	193/16.5	186/ 8.1	165/ 8.1	146/ 8.1	131/ 8.1
	15	79/16.5	90/16.5	100/16.5	116/16.5	132/16.5	148/16.5	164/16.5	180/16.5	177/16.5	170/ 9.0	154/ 9.0	137/ 9.0	122/ 9.0
	17	70/16.5	78/16.5	88/16.5	104/16.5	120/16.5	136/16.5	152/16.5	168/16.5	165/16.5	158/ 9.0	142/ 9.0	126/ 9.0	111/ 9.0
	19	62/16.5	66/16.5	76/16.5	92/16.5	108/16.5	124/16.5	140/16.5	156/16.5	153/16.5	146/ 9.0	130/ 9.0	114/ 9.0	99/ 9.0
	21	54/16.5	55/16.5	65/16.5	81/16.5	97/16.5	113/16.5	129/16.5	145/16.5	142/16.5	135/ 9.0	119/ 9.0	103/ 9.0	88/ 9.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

PL 1078

SHORTCRESTED
DMS VEH DISP IN FEET/ENCOUNTERED MOUL PERIOD, T, IN SECONDS
OF
AFT PERPENDICULAR AT MAIN DECK - 10.5 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES															
		0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225
5	7	158/10.1	165/10.1	184/9.8	206/8.3	226/7.9	241/7.5	247/7.0	245/6.8	234/6.8	219/6.8	202/6.8	189/7.0	174/7.0	159/7.0	143/7.1	127/7.1
9	9	237/11.2	240/11.2	247/11.2	257/10.8	267/10.5	276/9.8	282/9.0	285/8.5	283/8.3	269/8.3	251/8.3	236/8.3	221/8.1	206/8.1	191/8.1	176/8.1
13	13	280/12.6	281/12.6	281/12.6	289/13.7	294/13.4	296/13.1	288/12.8	283/12.1	270/11.5	250/11.2	231/11.2	216/11.2	201/11.2	186/11.2	171/11.2	156/11.2
15	15	295/14.0	296/14.0	292/14.0	299/14.0	294/13.7	284/13.5	274/13.0	267/12.4	254/11.8	234/11.5	215/11.5	199/11.5	184/11.5	169/11.5	154/11.5	139/11.5
17	17	297/15.7	296/15.7	293/15.7	293/15.7	288/15.7	278/15.0	267/14.5	257/13.8	244/13.2	224/12.8	205/12.8	189/12.8	174/12.8	159/12.8	144/12.8	129/12.8
19	19	293/17.5	291/17.5	288/17.5	283/17.5	274/17.0	261/16.5	247/15.8	234/15.2	221/14.6	201/14.6	182/14.6	166/14.6	151/14.6	136/14.6	121/14.6	106/14.6
21	21	287/19.6	285/19.6	282/19.6	278/19.6	273/19.0	261/18.5	247/17.8	234/17.2	221/16.6	201/16.6	182/16.6	166/16.6	151/16.6	136/16.6	121/16.6	106/16.6
10	7	135/13.4	142/13.4	160/12.8	181/12.8	201/12.7	214/12.7	221/12.0	220/12.0	212/12.0	197/12.0	185/12.0	174/12.0	162/12.0	150/12.0	138/12.0	126/12.0
9	9	211/14.0	214/14.0	221/14.0	231/14.0	241/13.7	251/13.2	259/12.5	264/11.8	267/11.2	253/11.2	234/11.2	219/11.2	204/11.2	189/11.2	174/11.2	159/11.2
13	13	254/15.1	254/15.1	255/15.1	257/15.1	254/14.9	244/14.6	229/14.0	216/13.4	204/12.8	184/12.8	165/12.8	150/12.8	135/12.8	120/12.8	105/12.8	90/12.8
15	15	275/17.5	274/17.5	269/17.5	261/17.0	254/16.5	244/15.8	231/15.2	218/14.6	206/14.0	186/14.0	167/14.0	151/14.0	136/14.0	121/14.0	106/14.0	91/14.0
17	17	273/19.0	272/19.0	269/19.0	264/19.0	259/18.5	251/17.8	237/17.2	224/16.6	211/16.0	191/16.0	172/16.0	156/16.0	141/16.0	126/16.0	111/16.0	96/16.0
19	19	269/21.7	266/21.7	264/21.7	263/21.7	259/21.7	254/21.7	247/21.0	234/20.4	221/19.8	201/19.8	182/19.8	166/19.8	151/19.8	136/19.8	121/19.8	106/19.8
21	21	267/23.3	266/23.3	264/23.3	261/23.3	254/23.3	247/23.3	237/22.6	224/22.0	211/21.4	191/21.4	172/21.4	156/21.4	141/21.4	126/21.4	111/21.4	96/21.4
15	7	119/17.5	126/17.5	142/17.5	162/17.5	180/17.5	194/17.5	201/17.0	201/17.0	194/17.0	182/17.0	168/17.0	157/17.1	147/17.1	137/17.1	127/17.1	117/17.1
9	9	184/17.5	192/17.5	199/17.5	209/17.5	221/17.5	231/17.5	240/17.0	246/16.5	249/16.0	235/16.0	216/16.0	199/16.0	184/16.0	169/16.0	154/16.0	139/16.0
13	13	230/20.3	237/20.3	247/20.3	256/20.3	264/20.3	269/20.3	263/19.8	253/19.2	240/18.6	220/18.6	201/18.6	185/18.6	170/18.6	155/18.6	140/18.6	125/18.6
15	15	248/20.3	247/20.3	247/20.3	246/20.3	244/20.3	240/20.3	234/20.3	224/19.8	211/19.2	191/19.2	172/19.2	156/19.2	141/19.2	126/19.2	111/19.2	96/19.2
17	17	254/20.3	254/20.3	252/20.3	249/20.3	244/20.3	234/20.3	224/20.3	211/19.8	191/19.8	172/19.8	156/19.8	141/19.8	126/19.8	111/19.8	96/19.8	81/19.8
19	19	253/23.3	253/23.3	251/23.3	244/23.3	234/23.3	224/23.3	211/22.6	191/22.0	172/21.4	156/21.4	141/21.4	126/21.4	111/21.4	96/21.4	81/21.4	66/21.4
21	21	253/25.1	252/25.1	250/25.1	244/25.1	234/25.1	224/25.1	211/24.4	191/23.8	172/23.2	156/23.2	141/23.2	126/23.2	111/23.2	96/23.2	81/23.2	66/23.2
20	7	108/13.4	114/13.4	130/13.4	148/13.4	166/13.4	180/13.4	188/13.4	189/13.4	183/13.4	172/13.4	158/13.4	147/13.4	137/13.4	127/13.4	117/13.4	107/13.4
9	9	172/23.3	174/23.3	181/23.3	192/23.3	204/23.3	214/23.3	226/23.3	234/23.3	237/23.3	234/23.3	237/23.3	236/23.3	236/23.3	235/23.3	235/23.3	235/23.3
11	11	204/23.3	210/23.3	213/23.3	217/23.3	223/23.3	230/23.3	239/23.3	249/23.3	258/23.3	265/23.3	271/23.3	274/23.3	275/23.3	275/23.3	275/23.3	275/23.3
13	13	227/26.2	227/26.2	227/26.2	228/26.2	230/26.2	233/26.2	242/26.2	251/26.2	258/26.2	264/26.2	268/26.2	271/26.2	273/26.2	274/26.2	274/26.2	274/26.2
15	15	235/26.2	235/26.2	234/26.2	233/26.2	233/26.2	236/26.2	241/26.2	249/26.2	258/26.2	264/26.2	268/26.2	271/26.2	273/26.2	274/26.2	274/26.2	274/26.2
17	17	237/26.2	237/26.2	236/26.2	234/26.2	233/26.2	233/26.2	239/26.2	246/26.2	254/26.2	261/26.2	265/26.2	268/26.2	270/26.2	271/26.2	271/26.2	271/26.2
19	19	238/27.3	237/27.3	236/27.3	234/27.3	233/27.3	233/27.3	237/27.3	244/27.3	251/27.3	258/27.3	263/27.3	266/27.3	268/27.3	269/27.3	269/27.3	269/27.3
21	21	239/27.3	238/27.3	237/27.3	235/27.3	234/27.3	234/27.3	237/27.3	244/27.3	251/27.3	258/27.3	263/27.3	266/27.3	268/27.3	269/27.3	269/27.3	269/27.3
25	7	102/16.5	109/16.5	121/16.5	138/16.5	156/16.5	170/16.5	179/16.5	181/16.5	176/16.5	165/16.5	152/16.5	141/16.5	131/16.5	121/16.5	111/16.5	101/16.5
9	9	158/16.5	161/16.5	167/16.5	178/16.5	191/16.5	205/16.5	217/16.5	227/16.5	233/16.5	235/16.5	237/16.5	236/16.5	236/16.5	235/16.5	235/16.5	235/16.5
11	11	191/33.1	192/33.1	195/33.1	200/33.1	207/33.1	214/33.1	224/33.1	234/33.1	244/33.1	251/33.1	258/33.1	263/33.1	266/33.1	268/33.1	269/33.1	269/33.1
13	13	208/33.1	208/33.1	208/33.1	210/33.1	214/33.1	224/33.1	234/33.1	244/33.1	251/33.1	258/33.1	263/33.1	266/33.1	268/33.1	269/33.1	269/33.1	269/33.1
15	15	216/33.1	216/33.1	215/33.1	216/33.1	218/33.1	223/33.1	233/33.1	243/33.1	250/33.1	257/33.1	262/33.1	265/33.1	267/33.1	268/33.1	268/33.1	268/33.1
17	17	219/33.1	219/33.1	218/33.1	218/33.1	219/33.1	223/33.1	233/33.1	243/33.1	250/33.1	257/33.1	262/33.1	265/33.1	267/33.1	268/33.1	268/33.1	268/33.1
19	19	221/33.1	221/33.1	220/33.1	220/33.1	221/33.1	223/33.1	228/33.1	234/33.1	241/33.1	248/33.1	253/33.1	256/33.1	258/33.1	259/33.1	259/33.1	259/33.1
21	21	223/33.1	223/33.1	222/33.1	222/33.1	222/33.1	224/33.1	228/33.1	234/33.1	241/33.1	248/33.1	253/33.1	256/33.1	258/33.1	259/33.1	259/33.1	259/33.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MIDAL WAVE PERIOD IN SECONDS.

DE 107A													
SHORTCUTTED HMS VER VEL IN FPS/ENCOUNTERED MODAL PERIOD, T * IN SECONDS OE AFT PERPENDICULAR AT MAIN DECK - JO.5 FT FROM HL													
SHIP HEADING ANGLE IN DEGREES													
V T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7 116/9.8 145/10.8 151/10.8 155/11.6 163/12.8 167/14.0 174/15.3 182/17.0 190/19.0	127/9.8 151/10.8 163/11.6 174/12.8 182/14.0 190/15.3 201/17.0 211/18.5 221/20.3	152/8.3 165/10.8 174/12.8 182/14.0 190/15.3 201/17.0 211/18.5 221/20.3 231/21.8	180/7.5 193/10.5 201/12.8 211/15.3 221/17.8 231/20.3 241/22.8 251/25.3 261/27.8	207/6.8 220/9.5 228/11.6 237/13.4 246/15.3 255/17.0 264/18.5 273/20.3 282/22.8	227/6.1 239/8.3 247/10.5 255/12.8 264/15.3 273/17.0 282/18.5 291/20.3 300/22.8	239/6.4 251/8.3 259/10.5 267/12.8 276/15.3 285/17.0 294/18.5 303/20.3 312/22.8	240/6.4 252/8.3 260/10.5 268/12.8 277/15.3 286/17.0 295/18.5 304/20.3 313/22.8	233/6.4 245/8.3 253/10.5 261/12.8 270/15.3 279/17.0 288/18.5 297/20.3 306/22.8	218/6.5 230/8.3 238/10.5 246/12.8 255/15.3 264/17.0 273/18.5 282/20.3 291/22.8	200/6.5 212/8.3 220/10.5 228/12.8 237/15.3 246/17.0 255/18.5 264/20.3 273/22.8	186/6.5 200/8.3 208/10.5 216/12.8 225/15.3 234/17.0 243/18.5 252/20.3 261/22.8	181/6.7 232/7.5 234/8.3 236/9.2 238/10.8 240/12.4 242/14.0 244/15.6 246/17.2
10	7 80/12.8 106/14.0 115/14.6 124/15.3 133/16.1 142/17.0 151/17.8 160/18.5 169/19.3	091/12.8 112/14.0 124/15.3 136/16.1 148/17.0 160/18.5 172/19.3 184/20.3 196/21.3	116/12.8 127/14.0 138/15.3 149/16.1 160/17.0 172/18.5 184/19.3 196/20.3 208/21.3	146/11.6 157/13.4 168/15.3 179/17.0 190/18.5 201/20.3 212/21.3 223/22.8 234/24.3	174/10.5 185/12.8 196/15.3 207/17.0 218/18.5 229/20.3 240/21.3 251/22.8 262/24.3	198/9.4 209/11.6 220/13.4 231/15.3 242/17.0 253/18.5 264/20.3 275/21.3 286/22.8	215/8.4 226/10.5 237/12.8 248/15.3 259/17.0 270/18.5 281/20.3 292/21.3 303/22.8	222/8.5 233/10.5 244/12.8 255/15.3 266/17.0 277/18.5 288/20.3 299/21.3 310/22.8	221/8.5 232/10.5 243/12.8 254/15.3 265/17.0 276/18.5 287/20.3 298/21.3 309/22.8	213/6.5 224/8.3 235/10.5 246/12.8 257/15.3 268/17.0 279/18.5 290/20.3 301/22.8	200/6.7 211/8.3 222/10.5 233/12.8 244/15.3 255/17.0 266/18.5 277/20.3 288/22.8	189/6.7 200/8.3 211/10.5 222/12.8 233/15.3 244/17.0 255/18.5 266/20.3 277/22.8	185/6.7 248/7.7 251/8.3 254/9.2 257/10.8 260/12.4 263/14.0 266/15.6 269/17.2
15	7 56/14.3 76/17.5 85/19.0 94/20.3 103/21.3 112/22.8 121/24.3 130/25.8 139/27.3	067/14.3 082/17.5 089/19.0 096/20.3 103/21.3 110/22.8 117/24.3 124/25.8 131/27.3	092/14.3 099/17.5 106/19.0 113/20.3 120/21.3 127/22.8 134/24.3 141/25.8 148/27.3	122/12.0 133/14.3 144/16.1 155/17.8 166/19.3 177/20.3 188/21.3 199/22.8 210/24.3	153/10.5 164/12.8 175/15.3 186/17.0 197/18.5 208/20.3 219/21.3 230/22.8 241/24.3	179/9.7 190/11.6 201/13.4 212/15.3 223/17.0 234/18.5 245/20.3 256/21.3 267/22.8	199/8.7 210/10.5 221/12.8 232/15.3 243/17.0 254/18.5 265/20.3 276/21.3 287/22.8	210/8.7 221/10.5 232/12.8 243/15.3 254/17.0 265/18.5 276/20.3 287/21.3 298/22.8	213/6.7 224/8.3 235/10.5 246/12.8 257/15.3 268/17.0 279/18.5 290/20.3 301/22.8	207/6.7 218/8.3 229/10.5 240/12.8 251/15.3 262/17.0 273/18.5 284/20.3 295/22.8	197/6.7 208/8.3 219/10.5 230/12.8 241/15.3 252/17.0 263/18.5 274/20.3 285/22.8	187/6.7 254/7.7 257/8.3 260/9.2 263/10.8 266/12.4 269/14.0 272/15.6 275/17.2	183/6.8 255/7.7 258/8.3 261/9.2 264/10.8 267/12.4 270/14.0 273/15.6 276/17.2
20	7 40/13.4 53/19.0 66/23.3 79/26.2 92/29.8 105/33.1 118/37.7 131/41.3 144/44.9	051/13.4 060/19.0 066/23.3 072/26.2 078/29.8 084/33.1 090/37.7 096/41.3 102/44.9	076/13.4 079/19.0 084/23.3 089/26.2 094/29.8 099/33.1 104/37.7 109/41.3 114/44.9	107/13.4 106/19.0 105/23.3 104/26.2 103/29.8 102/33.1 101/37.7 100/41.3 99/44.9	139/13.4 138/19.0 137/23.3 136/26.2 135/29.8 134/33.1 133/37.7 132/41.3 131/44.9	164/11.6 171/13.4 178/15.3 185/17.0 192/18.5 199/20.3 206/21.3 213/22.8 220/24.3	184/10.5 191/12.8 198/15.3 205/17.0 212/18.5 219/20.3 226/21.3 233/22.8 240/24.3	205/9.5 212/11.6 219/13.4 226/15.3 233/17.0 240/18.5 247/20.3 254/21.3 261/22.8	210/6.7 221/8.3 232/10.5 243/12.8 254/15.3 265/17.0 276/18.5 287/20.3 298/22.8	207/6.7 218/8.3 229/10.5 240/12.8 251/15.3 262/17.0 273/18.5 284/20.3 295/22.8	198/6.8 209/8.3 220/10.5 231/12.8 242/15.3 253/17.0 264/18.5 275/20.3 286/22.8	189/6.8 264/7.5 267/8.3 270/9.2 273/10.8 276/12.4 279/14.0 282/15.6 285/17.2	185/7.0 264/7.5 267/8.3 270/9.2 273/10.8 276/12.4 279/14.0 282/15.6 285/17.2
25	7 31/16.5 43/16.5 55/16.5 67/16.5 79/16.5 91/16.5 103/16.5 115/16.5 127/16.5	045/16.5 048/16.5 051/16.5 054/16.5 057/16.5 060/16.5 063/16.5 066/16.5 069/16.5	066/16.5 069/16.5 072/16.5 075/16.5 078/16.5 081/16.5 084/16.5 087/16.5 090/16.5	094/16.5 093/16.5 092/16.5 091/16.5 090/16.5 089/16.5 088/16.5 087/16.5 086/16.5	132/16.5 131/16.5 130/16.5 129/16.5 128/16.5 127/16.5 126/16.5 125/16.5 124/16.5	163/16.5 162/16.5 161/16.5 160/16.5 159/16.5 158/16.5 157/16.5 156/16.5 155/16.5	188/16.5 187/16.5 186/16.5 185/16.5 184/16.5 183/16.5 182/16.5 181/16.5 180/16.5	204/16.5 203/16.5 202/16.5 201/16.5 200/16.5 199/16.5 198/16.5 197/16.5 196/16.5	211/6.7 210/6.7 209/6.7 208/6.7 207/6.7 206/6.7 205/6.7 204/6.7 203/6.7	209/6.8 208/6.8 207/6.8 206/6.8 205/6.8 204/6.8 203/6.8 202/6.8 201/6.8	201/7.0 200/7.0 199/7.0 198/7.0 197/7.0 196/7.0 195/7.0 194/7.0 193/7.0	192/7.1 191/7.1 190/7.1 189/7.1 188/7.1 187/7.1 186/7.1 185/7.1 184/7.1	188/7.1 282/7.7 285/8.3 288/8.9 291/9.5 294/10.1 297/10.7 300/11.3 303/11.9

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DL 1074

SHOULDERED
 HAS VBR ACC IN G'S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
 OE
 (ACC. X 100)
 AFT PERPENDICULAR AT MAIN DECK - 30.5 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES													
		0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.488/8.3	.334/8.3	.434/6.8	.546/5.7	.649/5.7	.724/5.7	.777/5.7	.790/5.7	.769/6.3	.721/6.3	.658/6.3	.606/6.4	.584/6.4	
	9	.300/10.5	.326/10.5	.334/10.5	.366/8.3	.441/8.8	.494/7.5	.539/7.3	.571/7.3	.597/7.3	.597/7.5	.595/7.5	.592/7.7	.590/7.7	
	11	.281/11.2	.296/11.2	.334/11.2	.365/10.8	.411/9.8	.434/7.7	.434/7.7	.463/7.7	.484/7.7	.496/7.9	.501/7.9	.504/8.1	.504/8.1	
	13	.249/12.6	.258/12.1	.283/12.1	.318/11.6	.356/10.8	.398/8.7	.434/7.7	.463/7.7	.484/7.7	.496/7.9	.501/7.9	.504/8.1	.504/8.1	
	15	.215/12.6	.222/12.1	.235/12.1	.264/12.1	.293/11.6	.324/10.8	.353/8.3	.378/8.1	.397/8.1	.410/8.3	.417/8.3	.423/8.3	.423/8.3	
	17	.185/13.1	.190/13.1	.203/12.8	.221/12.6	.243/12.1	.268/11.6	.291/9.0	.312/8.3	.328/8.3	.340/8.3	.347/8.5	.353/8.5	.354/8.5	
	19	.160/13.4	.164/13.4	.173/13.4	.187/13.1	.205/12.5	.224/12.1	.243/11.2	.261/8.5	.275/8.3	.286/8.5	.293/8.5	.297/8.7	.299/8.7	
10	7	.139/13.7	.142/13.7	.149/13.4	.167/13.4	.185/13.4	.190/12.6	.206/11.6	.221/8.7	.233/8.5	.243/8.7	.249/8.7	.253/8.7	.255/8.7	
	9	.170/12.8	.217/8.5	.317/6.3	.434/6.3	.549/6.3	.649/6.3	.723/6.3	.766/6.3	.777/6.3	.760/6.3	.725/6.4	.691/6.5	.677/6.5	
	11	.183/13.7	.210/13.7	.274/13.7	.366/6.7	.464/6.7	.560/6.7	.643/6.7	.708/6.7	.751/6.8	.773/7.0	.779/7.1	.777/7.1	.776/7.1	
	13	.177/14.3	.193/14.3	.238/14.0	.301/13.7	.377/13.7	.455/7.0	.530/7.1	.594/7.3	.644/7.3	.679/7.5	.701/7.7	.712/7.7	.716/7.7	
	15	.161/14.6	.172/14.6	.202/14.0	.248/14.3	.305/11.2	.368/7.3	.430/7.7	.486/7.7	.532/7.9	.568/7.9	.592/7.9	.607/8.1	.611/8.1	
	17	.143/15.3	.150/15.0	.172/15.0	.207/14.6	.251/14.0	.300/8.7	.350/8.1	.397/8.1	.438/8.1	.470/8.3	.493/8.3	.506/8.3	.511/8.3	
	19	.125/15.7	.131/15.7	.144/15.3	.174/15.0	.209/14.3	.248/12.8	.289/8.3	.328/8.3	.363/8.3	.390/8.3	.410/8.3	.423/8.3	.427/8.5	
15	7	.097/17.0	.101/16.5	.111/16.5	.128/16.1	.150/15.3	.177/14.6	.205/12.8	.233/8.5	.257/8.5	.277/8.5	.292/8.5	.302/8.7	.305/8.7	
	9	.106/14.3	.151/7.0	.250/6.8	.372/6.5	.499/6.3	.614/6.3	.707/6.3	.771/6.3	.801/6.3	.802/6.4	.781/6.5	.754/6.5	.742/6.5	
	11	.112/17.5	.141/14.3	.213/7.1	.313/7.0	.428/6.7	.545/6.7	.652/6.8	.741/6.8	.807/7.0	.849/7.1	.871/7.1	.879/7.1	.881/7.3	
	13	.110/17.5	.129/17.5	.180/17.5	.255/7.3	.367/7.1	.447/7.1	.544/7.1	.631/7.3	.703/7.5	.758/7.5	.795/7.7	.816/7.7	.822/7.7	
	15	.103/20.3	.116/20.3	.152/17.3	.209/14.3	.281/7.5	.361/7.5	.443/7.5	.519/7.7	.585/7.7	.637/7.9	.675/7.9	.697/8.1	.705/8.1	
	17	.094/20.3	.103/20.3	.130/20.3	.173/17.3	.230/11.2	.295/7.7	.361/7.7	.425/7.9	.482/8.1	.528/8.3	.562/8.3	.583/8.3	.589/8.5	
	19	.084/20.3	.091/20.3	.112/20.3	.146/20.3	.191/14.3	.243/7.9	.298/8.1	.351/8.1	.399/8.3	.439/8.3	.468/8.3	.486/8.5	.492/8.5	
20	7	.076/20.3	.081/20.3	.097/20.3	.124/20.3	.161/17.5	.204/14.3	.249/8.1	.294/8.3	.334/8.3	.367/8.5	.392/8.5	.408/8.5	.413/8.7	
	9	.068/20.3	.072/20.3	.085/20.3	.107/20.3	.134/17.5	.173/14.3	.211/8.3	.249/8.3	.283/8.5	.311/8.5	.332/8.7	.346/8.7	.350/8.7	
	11	.072/13.4	.115/13.4	.214/7.7	.344/6.7	.482/5.7	.612/6.3	.721/6.3	.799/6.3	.842/6.4	.852/6.5	.837/6.5	.814/6.7	.803/6.7	
	13	.071/13.4	.101/13.4	.179/13.4	.291/7.5	.423/6.3	.560/6.7	.689/6.7	.799/7.0	.885/7.1	.944/7.1	.976/7.1	.994/7.3	.998/7.3	
	15	.069/19.0	.090/19.0	.147/13.4	.235/7.9	.343/7.3	.462/7.1	.580/7.1	.689/7.3	.781/7.3	.853/7.5	.903/7.5	.932/7.5	.941/7.5	
	17	.066/23.3	.080/23.3	.123/19.0	.190/13.4	.277/7.7	.374/7.3	.473/7.5	.568/7.5	.651/7.7	.719/7.7	.768/7.7	.798/7.7	.808/7.7	
	19	.061/23.3	.072/23.3	.104/23.3	.157/13.4	.225/7.9	.304/7.5	.386/7.5	.465/7.7	.536/7.7	.595/7.9	.639/7.9	.666/7.9	.676/7.9	
25	7	.057/26.2	.065/26.2	.090/23.3	.131/14.0	.186/13.4	.250/7.7	.318/7.7	.384/7.7	.444/7.9	.494/8.1	.532/8.1	.559/8.1	.563/8.1	
	9	.052/26.2	.058/26.2	.074/26.2	.111/14.0	.156/13.4	.209/7.7	.265/7.7	.320/7.9	.371/8.1	.413/8.1	.445/8.3	.465/8.3	.472/8.3	
	11	.048/26.2	.053/26.2	.069/26.2	.096/23.3	.133/14.0	.177/13.4	.224/7.7	.271/7.9	.313/8.1	.349/8.3	.377/8.3	.394/8.3	.400/8.3	
	13	.068/16.5	.103/16.5	.200/8.7	.335/6.7	.487/5.7	.630/6.3	.751/6.3	.840/6.4	.892/6.5	.908/6.7	.896/6.8	.873/6.8	.861/7.0	
	15	.055/16.5	.083/16.5	.165/16.5	.268/6.3	.398/6.3	.536/6.7	.674/6.7	.788/6.8	.880/7.1	.948/7.1	.109/7.3	.133/7.3	.140/7.5	
	17	.049/16.5	.070/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	19	.045/16.5	.061/16.5	.104/16.5	.166/16.5	.237/6.8	.302/7.1	.373/7.3	.443/7.5	.508/7.7	.568/7.9	.623/7.9	.673/7.9	.709/7.9	
30	7	.042/16.5	.054/16.5	.090/16.5	.152/16.5	.232/7.0	.306/7.3	.381/7.5	.451/7.7	.516/7.9	.576/7.9	.631/7.9	.681/7.9	.719/7.9	
	9	.039/33.1	.048/33.1	.077/16.5	.126/16.5	.191/16.5	.267/7.3	.349/7.5	.429/7.7	.503/7.9	.565/7.9	.613/7.9	.642/7.9	.653/7.9	
	11	.037/33.1	.044/33.1	.067/16.5	.106/16.5	.150/16.5	.223/7.3	.290/7.5	.357/7.7	.422/7.9	.472/7.9	.512/7.9	.538/7.9	.546/7.9	
	13	.034/33.1	.040/33.1	.059/33.1	.091/16.5	.135/16.5	.188/7.3	.244/7.5	.301/7.7	.353/7.9	.403/7.9	.433/7.9	.454/7.9	.462/8.1	
	15	.035/16.5	.063/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	17	.045/16.5	.070/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	19	.042/16.5	.054/16.5	.090/16.5	.152/16.5	.232/7.0	.306/7.3	.381/7.5	.451/7.7	.516/7.9	.576/7.9	.631/7.9	.681/7.9	.719/7.9	
35	7	.039/33.1	.048/33.1	.077/16.5	.126/16.5	.191/16.5	.267/7.3	.349/7.5	.429/7.7	.503/7.9	.565/7.9	.613/7.9	.642/7.9	.653/7.9	
	9	.037/33.1	.044/33.1	.067/16.5	.106/16.5	.150/16.5	.223/7.3	.290/7.5	.357/7.7	.422/7.9	.472/7.9	.512/7.9	.538/7.9	.546/7.9	
	11	.034/33.1	.040/33.1	.059/33.1	.091/16.5	.135/16.5	.188/7.3	.244/7.5	.301/7.7	.353/7.9	.403/7.9	.433/7.9	.454/7.9	.462/8.1	
	13	.035/16.5	.063/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	15	.045/16.5	.070/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	17	.042/16.5	.054/16.5	.090/16.5	.152/16.5	.232/7.0	.306/7.3	.381/7.5	.451/7.7	.516/7.9	.576/7.9	.631/7.9	.681/7.9	.719/7.9	
	19	.039/33.1	.048/33.1	.077/16.5	.126/16.5	.191/16.5	.267/7.3	.349/7.5	.429/7.7	.503/7.9	.565/7.9	.613/7.9	.642/7.9	.653/7.9	
40	7	.037/33.1	.044/33.1	.067/16.5	.106/16.5	.150/16.5	.223/7.3	.290/7.5	.357/7.7	.422/7.9	.472/7.9	.512/7.9	.538/7.9	.546/7.9	
	9	.034/33.1	.040/33.1	.059/33.1	.091/16.5	.135/16.5	.188/7.3	.244/7.5	.301/7.7	.353/7.9	.403/7.9	.433/7.9	.454/7.9	.462/8.1	
	11	.035/16.5	.063/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	13	.045/16.5	.070/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	15	.042/16.5	.054/16.5	.090/16.5	.152/16.5	.232/7.0	.306/7.3	.381/7.5	.451/7.7	.516/7.9	.576/7.9	.631/7.9	.681/7.9	.719/7.9	
	17	.039/33.1	.048/33.1	.077/16.5	.126/16.5	.191/16.5	.267/7.3	.349/7.5	.429/7.7	.503/7.9	.565/7.9	.613/7.9	.642/7.9	.653/7.9	
	19	.037/33.1	.044/33.1	.067/16.5	.106/16.5	.150/16.5	.223/7.3	.290/7.5	.357/7.7	.422/7.9	.472/7.9	.512/7.9	.538/7.9	.546/7.9	
45	7	.034/33.1	.040/33.1	.059/33.1	.091/16.5	.135/16.5	.188/7.3	.244/7.5	.301/7.7	.353/7.9	.403/7.9	.433/7.9	.454/7.9	.462/8.1	
	9	.035/16.5	.063/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	11	.045/16.5	.070/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	13	.042/16.5	.054/16.5	.090/16.5	.152/16.5	.232/7.0	.306/7.3	.381/7.5	.451/7.7	.516/7.9	.576/7.9	.631/7.9	.681/7.9	.719/7.9	
	15	.039/33.1	.048/33.1	.077/16.5	.126/16.5	.191/16.5	.267/7.3	.349/7.5	.429/7.7	.503/7.9	.565/7.9	.613/7.9	.642/7.9	.653/7.9	
	17	.037/33.1	.044/33.1	.067/16.5	.106/16.5	.150/16.5	.223/7.3	.290/7.5	.357/7.7	.422/7.9	.472/7.9	.512/7.9	.538/7.9	.546/7.9	
	19	.034/33.1	.040/33.1	.059/33.1	.091/16.5	.135/16.5	.188/7.3	.244/7.5	.301/7.7	.353/7.9	.403/7.9	.433/7.9	.454/7.9	.462/8.1	
50	7	.035/16.5	.063/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	9	.045/16.5	.070/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
	11	.042/16.5	.054/16.5	.090/16.5	.152/16.5	.232/7.0	.306/7.3	.381/7.5	.451/7.7	.516/7.9	.576/7.9	.631/7.9	.681/7.9	.719/7.9	
	13	.039/33.1	.048/33.1	.077/16.5	.126/16.5	.191/16.5	.267/7.3	.349/7.5	.429/7.7	.503/7.9	.565/7.9	.613/7.9	.642/7.9	.653/7.9	
	15	.037/33.1	.044/33.1	.067/16.5	.106/16.5	.150/16.5	.223/7.3	.290/7.5	.357/7.7	.422/7.9	.472/7.9	.512/7.9	.538/7.9	.546/7.9	
	17	.034/33.1	.040/33.1	.059/33.1	.091/16.5	.135/16.5	.188/7.3	.244/7.5	.301/7.7	.353/7.9	.403/7.9	.433/7.9	.454/7.9	.462/8.1	
	19	.035/16.5	.063/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.140/7.7	
55	7	.045/16.5	.070/16.5	.133/16.5	.232/16.5	.357/6.7	.497/7.0	.637/7.1	.769/7.3	.833/7.5	.974/7.7	.104/7.7	.127/7.7	.	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

SHOULDERED
RMS LAT WISH IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

HELICOPTER DECK HULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM HL

		SHIP HEADING ANGLE IN DEGREES													
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180	
5	7	.112/9.2	.120/9.2	.137/9.0	.157/8.7	.174/8.7	.183/8.3	.183/8.3	.174/8.3	.157/7.9	.134/7.5	.110/7.3	.089/7.1	.080/7.1	
	9	.125/9.2	.133/9.2	.152/9.0	.174/9.0	.191/9.0	.201/9.0	.201/9.0	.205/8.7	.190/8.7	.169/8.7	.145/8.7	.126/8.7	.114/8.7	
	11	.121/9.2	.128/9.2	.145/9.2	.167/9.2	.185/9.2	.194/9.0	.194/9.0	.189/9.0	.165/9.0	.147/9.0	.128/9.0	.108/9.0	.090/9.0	
	13	.121/15.0	.128/14.6	.144/14.6	.163/14.3	.180/14.3	.191/14.3	.194/14.3	.189/14.3	.165/14.3	.147/14.3	.128/14.3	.108/14.3	.090/14.3	
	15	.124/16.5	.130/16.5	.146/16.5	.165/16.1	.181/16.1	.191/16.1	.194/16.1	.189/16.1	.165/16.1	.147/16.1	.128/16.1	.108/16.1	.090/16.1	
10	7	.112/9.5	.121/9.5	.140/9.5	.161/9.5	.176/9.5	.182/9.5	.182/9.5	.166/8.7	.145/8.3	.120/7.5	.094/7.3	.073/7.1	.064/7.1	
	9	.123/9.5	.131/9.5	.149/9.5	.170/9.5	.187/9.5	.197/9.5	.197/9.5	.188/9.0	.172/9.0	.149/8.7	.126/8.7	.103/8.7	.089/9.0	
	11	.132/14.3	.139/14.3	.153/14.3	.171/14.3	.186/14.3	.194/14.3	.194/14.3	.187/14.3	.173/14.3	.153/14.3	.132/14.3	.113/14.3	.099/14.3	
	13	.139/15.7	.146/15.7	.159/15.7	.176/15.7	.191/15.7	.194/15.7	.194/15.7	.186/15.7	.173/15.7	.153/15.7	.132/15.7	.113/15.7	.099/15.7	
	15	.142/17.5	.148/17.5	.161/17.5	.178/17.5	.191/17.5	.194/17.5	.194/17.5	.186/17.5	.173/17.5	.153/17.5	.132/17.5	.113/17.5	.099/17.5	
15	7	.143/19.0	.148/18.5	.163/18.5	.179/18.5	.193/18.5	.199/18.5	.199/18.5	.189/17.5	.168/17.5	.143/17.5	.119/17.5	.094/17.5	.083/17.5	
	9	.142/20.3	.148/20.3	.163/20.3	.180/20.3	.194/20.3	.201/20.3	.201/20.3	.189/19.6	.168/19.6	.143/19.6	.119/19.6	.094/19.6	.083/19.6	
	11	.142/22.4	.148/22.4	.163/22.4	.180/22.4	.194/22.4	.201/22.4	.201/22.4	.189/20.9	.168/20.9	.143/20.9	.119/20.9	.094/20.9	.083/20.9	
	13	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/16.1	.168/16.1	.143/16.1	.119/16.1	.094/16.1	.083/16.1	
	15	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/15.7	.168/15.7	.143/15.7	.119/15.7	.094/15.7	.083/15.7	
20	7	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/16.1	.168/16.1	.143/16.1	.119/16.1	.094/16.1	.083/16.1	
	9	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/15.7	.168/15.7	.143/15.7	.119/15.7	.094/15.7	.083/15.7	
	11	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/14.3	.168/14.3	.143/14.3	.119/14.3	.094/14.3	.083/14.3	
	13	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/13.4	.168/13.4	.143/13.4	.119/13.4	.094/13.4	.083/13.4	
	15	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/12.5	.168/12.5	.143/12.5	.119/12.5	.094/12.5	.083/12.5	
25	7	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/11.6	.168/11.6	.143/11.6	.119/11.6	.094/11.6	.083/11.6	
	9	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/10.1	.168/10.1	.143/10.1	.119/10.1	.094/10.1	.083/10.1	
	11	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/8.7	.168/8.7	.143/8.7	.119/8.7	.094/8.7	.083/8.7	
	13	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/7.9	.168/7.9	.143/7.9	.119/7.9	.094/7.9	.083/7.9	
	15	.143/17.5	.148/17.5	.163/17.5	.179/17.5	.193/17.5	.199/17.5	.199/17.5	.189/7.1	.168/7.1	.143/7.1	.119/7.1	.094/7.1	.083/7.1	

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 10/8														
SHORTCUTTED														
RMS LAT VEL IN FPS/ENCOUNTERED MODAL PERIOD, T, IN SECONDS														
HELICOPTER DECK HULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM HL														
V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.083/9.2	.091/9.0	.109/9.2	.130/9.7	.148/8.3	.163/8.3	.164/7.9	.159/7.5	.146/7.1	.127/6.8	.105/6.8	.084/6.7	.075/6.8
	9	.086/9.2	.094/9.2	.111/9.2	.132/9.0	.150/9.0	.160/9.0	.169/8.7	.167/8.7	.156/8.5	.127/8.7	.101/8.5	.084/8.5	.075/8.5
	11	.076/9.2	.082/9.2	.096/9.2	.114/9.2	.130/9.0	.142/9.0	.148/9.0	.147/8.7	.140/8.7	.127/8.7	.111/8.7	.098/8.7	.092/8.7
	13	.067/9.2	.072/9.2	.084/9.2	.109/9.2	.122/9.0	.129/9.0	.127/9.0	.126/9.0	.120/9.0	.109/9.0	.096/9.0	.085/9.0	.081/9.0
	15	.061/9.2	.065/9.2	.075/9.2	.094/9.2	.108/9.0	.116/9.0	.114/9.0	.109/9.0	.104/9.0	.094/9.0	.083/9.0	.073/9.0	.070/9.0
	17	.055/16.5	.059/16.5	.068/16.5	.078/16.1	.088/16.1	.095/16.1	.098/15.7	.094/15.7	.092/9.0	.083/9.0	.073/9.0	.064/9.0	.061/9.0
	19	.051/17.5	.054/17.5	.062/17.5	.071/17.5	.080/17.5	.086/17.5	.089/17.5	.087/17.0	.082/17.0	.074/17.0	.065/9.0	.057/9.0	.054/9.0
10	7	.047/19.0	.050/19.0	.057/19.0	.066/18.5	.073/18.5	.079/18.5	.081/18.5	.080/18.0	.075/18.0	.068/18.0	.059/17.5	.052/17.5	.049/17.0
	9	.074/9.5	.083/9.5	.103/9.5	.125/9.5	.143/9.5	.150/9.5	.157/7.3	.151/7.3	.138/7.1	.129/7.0	.096/7.0	.076/6.8	.067/6.8
	11	.072/9.5	.080/9.5	.098/9.5	.119/9.5	.137/9.5	.144/9.5	.156/8.7	.154/8.7	.145/8.7	.129/8.5	.101/8.3	.084/8.3	.067/8.1
	13	.068/14.0	.074/9.5	.088/9.5	.105/9.5	.121/9.5	.132/9.0	.139/9.0	.138/9.0	.132/9.0	.120/9.0	.106/9.0	.093/9.2	.088/9.2
	15	.064/15.0	.068/15.0	.074/15.0	.093/14.5	.108/9.5	.116/9.5	.121/9.0	.121/9.0	.115/9.2	.105/9.2	.093/9.2	.083/9.5	.079/9.5
	17	.059/16.1	.063/16.1	.073/15.7	.084/15.7	.095/15.3	.103/15.3	.107/15.0	.106/9.2	.101/9.2	.092/9.2	.081/9.5	.073/9.5	.069/9.5
	19	.055/17.5	.058/17.5	.067/17.0	.077/17.0	.086/16.5	.093/16.5	.096/16.5	.095/15.7	.090/15.7	.081/9.2	.072/9.5	.064/9.5	.061/9.8
15	7	.047/19.6	.050/19.6	.057/19.6	.065/19.6	.073/19.0	.079/19.0	.080/19.0	.078/18.5	.074/18.0	.066/18.0	.058/18.0	.051/17.5	.049/17.5
	9	.068/17.5	.075/17.5	.091/17.5	.109/17.5	.126/17.5	.138/8.5	.144/8.5	.142/8.3	.133/8.3	.119/8.3	.101/8.1	.086/8.1	.079/8.1
	11	.069/17.5	.074/17.5	.086/17.5	.101/17.5	.115/17.5	.126/14.3	.131/9.0	.130/9.0	.124/9.0	.112/9.0	.098/9.2	.086/9.2	.081/9.2
	13	.066/17.5	.070/17.5	.080/17.5	.092/17.5	.104/17.5	.112/14.3	.117/14.3	.116/9.2	.110/9.2	.100/9.5	.089/9.8	.079/10.1	.074/10.1
	15	.062/17.5	.065/17.5	.074/17.5	.085/17.5	.094/17.5	.101/17.5	.104/15.3	.103/15.3	.098/10.1	.089/10.1	.078/10.1	.070/10.1	.066/10.1
	17	.057/17.5	.060/17.5	.068/17.5	.078/17.5	.086/17.5	.092/17.5	.094/17.5	.093/17.5	.087/15.7	.079/15.7	.070/10.1	.062/10.5	.058/10.5
	19	.053/19.6	.056/19.6	.063/19.6	.071/19.6	.079/19.6	.084/17.5	.086/17.5	.084/17.5	.079/17.5	.071/17.5	.062/17.0	.055/17.0	.052/17.0
20	7	.049/19.6	.052/19.6	.058/19.6	.066/19.6	.073/19.6	.079/19.6	.079/19.6	.077/19.0	.072/19.0	.065/18.5	.057/18.0	.050/19.0	.047/19.6
	9	.062/13.4	.070/13.4	.089/13.4	.109/13.4	.125/13.4	.136/13.4	.139/13.4	.134/8.3	.122/8.1	.105/7.9	.084/6.8	.065/6.8	.057/6.8
	11	.073/19.0	.078/19.0	.093/19.0	.110/19.0	.125/19.0	.136/13.4	.140/13.4	.137/8.5	.128/8.5	.114/8.5	.096/8.3	.081/8.3	.075/8.3
	13	.070/19.0	.074/19.0	.083/19.0	.095/19.0	.103/19.0	.116/19.0	.125/19.0	.129/19.0	.128/9.0	.109/9.0	.095/9.2	.083/9.2	.078/9.2
	15	.065/23.3	.068/23.3	.077/23.3	.087/19.0	.096/19.0	.102/19.0	.105/19.0	.115/13.4	.104/9.2	.098/9.5	.087/10.1	.077/10.5	.073/10.5
	17	.060/23.3	.063/23.3	.071/23.3	.080/19.0	.084/19.0	.093/19.0	.095/19.0	.103/19.0	.097/13.4	.088/10.8	.077/10.8	.069/10.8	.065/11.2
	19	.055/23.3	.058/23.3	.065/23.3	.073/23.3	.081/19.0	.085/19.0	.087/19.0	.084/19.0	.087/16.1	.078/15.7	.069/11.2	.061/11.2	.058/11.2
25	7	.051/23.3	.054/23.3	.060/23.3	.068/23.3	.074/23.3	.081/19.0	.087/19.0	.084/19.0	.079/16.0	.071/17.5	.062/17.0	.055/11.2	.052/11.2
	9	.059/16.5	.067/16.5	.086/16.5	.105/16.5	.121/16.5	.131/16.5	.133/16.5	.128/16.5	.117/16.5	.099/8.7	.079/6.8	.061/6.8	.053/6.8
	11	.069/16.5	.075/16.5	.090/16.5	.107/16.5	.122/16.5	.132/16.5	.136/16.5	.132/16.5	.123/16.5	.108/8.7	.091/8.7	.076/8.3	.070/8.3
	13	.072/16.5	.077/16.5	.088/16.5	.103/16.5	.115/16.5	.124/16.5	.127/16.5	.125/16.5	.117/16.5	.105/9.2	.091/9.2	.079/9.2	.074/9.2
	15	.067/16.5	.071/16.5	.084/16.5	.096/16.5	.106/16.5	.114/16.5	.116/16.5	.114/16.5	.107/16.5	.096/9.8	.085/10.1	.075/10.5	.071/10.8
	17	.061/16.5	.065/16.5	.079/16.5	.089/16.5	.098/16.5	.104/16.5	.105/16.5	.103/16.5	.096/16.5	.087/16.5	.076/11.2	.068/11.6	.064/11.6
	19	.056/24.2	.060/24.2	.073/16.5	.082/16.5	.090/16.5	.095/16.5	.098/16.5	.093/16.5	.087/16.5	.078/16.5	.068/11.6	.061/11.6	.058/11.6
	21	.051/24.9	.054/24.9	.061/24.2	.070/24.2	.076/24.2	.083/16.5	.087/16.5	.085/16.5	.078/16.5	.070/16.5	.061/17.5	.054/12.6	.051/12.6
	21	.051/24.9	.054/24.9	.061/24.2	.070/24.2	.076/24.2	.080/16.5	.080/16.5	.078/16.5	.072/16.5	.064/16.5	.056/19.6	.049/19.6	.046/12.6

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

SHORTCUTTED
RMS LAT ACC IN G/S/ENCOUNTERED MODAL PERIOD, T, IN SECONDS

(ACC. X 100)

HELICOPTER DECK BULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL

		SHIP HEADING ANGLE IN DEGREES												
V	T	0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	.198/ 9.0	.225/ 9.0	.289/ 8.7	.363/ 8.3	.429/ 7.9	.475/ 7.1	.497/ 6.8	.492/ 6.5	.459/ 6.4	.404/ 6.4	.333/ 6.4	.266/ 6.4	.236/ 6.4
	9	.193/ 9.2	.216/ 9.2	.268/ 9.0	.341/ 8.7	.399/ 8.7	.433/ 8.7	.456/ 8.5	.455/ 8.3	.432/ 8.1	.388/ 7.9	.333/ 7.9	.283/ 7.7	.262/ 7.7
	11	.160/ 9.2	.177/ 9.2	.218/ 9.2	.264/ 9.0	.315/ 8.7	.352/ 8.7	.372/ 8.7	.375/ 8.7	.359/ 8.7	.327/ 8.5	.286/ 8.5	.250/ 8.7	.234/ 8.7
	13	.131/ 9.2	.144/ 9.2	.176/ 9.2	.215/ 9.0	.252/ 9.0	.281/ 8.7	.298/ 8.7	.301/ 8.7	.289/ 8.7	.265/ 8.7	.234/ 8.7	.208/ 8.7	.194/ 8.7
	15	.108/ 9.2	.119/ 9.2	.144/ 9.2	.175/ 9.0	.204/ 9.0	.228/ 9.0	.241/ 8.7	.243/ 8.7	.234/ 8.7	.215/ 8.7	.190/ 8.7	.168/ 8.7	.159/ 8.7
	17	.091/ 9.2	.100/ 9.2	.120/ 9.2	.145/ 9.0	.169/ 9.0	.188/ 9.0	.199/ 8.7	.200/ 8.7	.193/ 8.7	.177/ 8.7	.157/ 8.7	.139/ 9.0	.131/ 9.0
	19	.078/ 9.2	.085/ 9.2	.102/ 9.2	.123/ 9.0	.142/ 9.0	.158/ 9.0	.167/ 8.7	.168/ 8.7	.161/ 8.7	.148/ 8.7	.131/ 9.0	.116/ 9.0	.110/ 9.0
	21	.067/ 9.2	.073/ 9.2	.087/ 9.2	.105/ 9.0	.122/ 9.0	.135/ 9.0	.142/ 8.7	.143/ 8.7	.137/ 8.7	.126/ 9.0	.111/ 9.0	.098/ 9.0	.093/ 9.0
10	7	.159/ 9.5	.190/ 9.5	.259/ 9.5	.331/ 9.5	.406/ 9.5	.456/ 7.0	.482/ 7.0	.480/ 6.7	.451/ 6.7	.398/ 6.5	.330/ 6.4	.265/ 6.4	.235/ 6.5
	9	.143/ 9.5	.168/ 9.5	.225/ 9.5	.292/ 9.5	.354/ 9.7	.402/ 8.7	.431/ 8.7	.437/ 8.3	.420/ 7.5	.381/ 7.5	.330/ 7.5	.282/ 7.5	.262/ 7.5
	11	.121/ 9.5	.139/ 9.5	.183/ 9.5	.245/ 9.5	.286/ 8.7	.327/ 8.7	.354/ 8.7	.362/ 8.7	.352/ 8.7	.325/ 8.5	.289/ 8.5	.254/ 8.5	.240/ 8.5
	13	.103/ 9.5	.118/ 9.5	.154/ 9.5	.190/ 9.5	.224/ 9.0	.261/ 9.0	.285/ 9.0	.291/ 9.0	.286/ 9.0	.261/ 9.0	.239/ 9.0	.213/ 9.2	.203/ 9.2
	15	.088/ 9.5	.098/ 9.5	.124/ 9.5	.157/ 9.5	.184/ 9.0	.215/ 9.0	.233/ 9.0	.239/ 9.0	.234/ 9.0	.218/ 9.2	.196/ 9.2	.176/ 9.2	.168/ 9.2
	17	.076/ 9.5	.084/ 9.5	.105/ 9.5	.131/ 9.5	.157/ 9.0	.178/ 9.0	.193/ 9.0	.198/ 9.0	.193/ 9.0	.180/ 9.2	.162/ 9.2	.146/ 9.2	.139/ 9.2
	19	.066/ 9.5	.073/ 9.5	.090/ 9.5	.112/ 9.5	.133/ 9.0	.156/ 9.0	.167/ 9.0	.166/ 9.0	.162/ 9.0	.151/ 9.2	.136/ 9.2	.122/ 9.2	.117/ 9.5
	21	.058/ 9.5	.064/ 9.5	.083/ 9.5	.105/ 9.5	.124/ 9.0	.147/ 9.0	.164/ 9.0	.161/ 9.0	.157/ 9.0	.148/ 9.2	.134/ 9.2	.120/ 9.2	.109/ 9.5
15	7	.110/ 10.1	.144/ 10.1	.216/ 10.1	.294/ 10.1	.369/ 10.1	.421/ 10.1	.454/ 7.1	.459/ 7.0	.436/ 6.8	.384/ 6.5	.326/ 6.3	.262/ 6.3	.233/ 6.4
	9	.107/ 10.1	.132/ 10.1	.197/ 10.1	.274/ 10.1	.349/ 10.1	.401/ 10.1	.434/ 7.1	.437/ 7.1	.405/ 7.7	.372/ 7.7	.325/ 7.5	.260/ 7.5	.240/ 7.5
	11	.097/ 10.1	.115/ 10.1	.174/ 10.1	.251/ 10.1	.326/ 10.1	.378/ 10.1	.411/ 10.1	.414/ 10.1	.383/ 10.1	.340/ 10.1	.297/ 10.1	.254/ 10.1	.241/ 10.1
	13	.086/ 10.1	.099/ 10.1	.151/ 10.1	.228/ 10.1	.294/ 10.1	.346/ 10.1	.378/ 10.1	.381/ 10.1	.350/ 10.1	.307/ 10.1	.264/ 10.1	.221/ 10.1	.215/ 10.1
	15	.076/ 10.1	.084/ 10.1	.131/ 10.1	.208/ 10.1	.274/ 10.1	.326/ 10.1	.358/ 10.1	.361/ 10.1	.330/ 10.1	.287/ 10.1	.244/ 10.1	.201/ 10.1	.194/ 10.1
	17	.067/ 10.1	.075/ 10.1	.116/ 10.1	.193/ 10.1	.259/ 10.1	.311/ 10.1	.343/ 10.1	.346/ 10.1	.315/ 10.1	.272/ 10.1	.229/ 10.1	.186/ 10.1	.179/ 10.1
	19	.059/ 10.1	.065/ 10.1	.106/ 10.1	.183/ 10.1	.249/ 10.1	.301/ 10.1	.333/ 10.1	.336/ 10.1	.305/ 10.1	.262/ 10.1	.219/ 10.1	.176/ 10.1	.169/ 10.1
	21	.052/ 10.1	.057/ 10.1	.098/ 10.1	.175/ 10.1	.241/ 10.1	.293/ 10.1	.325/ 10.1	.328/ 10.1	.297/ 10.1	.254/ 10.1	.211/ 10.1	.168/ 10.1	.162/ 10.1
20	7	.090/ 13.4	.125/ 13.4	.197/ 13.4	.274/ 13.4	.351/ 13.4	.403/ 13.4	.433/ 8.1	.451/ 7.9	.432/ 6.3	.388/ 6.3	.327/ 6.3	.265/ 6.4	.236/ 6.4
	9	.090/ 13.4	.115/ 13.4	.171/ 13.4	.247/ 13.4	.305/ 13.4	.360/ 13.4	.397/ 8.1	.412/ 8.1	.404/ 7.5	.374/ 7.5	.329/ 7.5	.264/ 7.5	.240/ 7.5
	11	.083/ 13.4	.101/ 13.4	.144/ 13.4	.217/ 13.4	.252/ 13.4	.299/ 13.4	.337/ 8.1	.348/ 8.1	.345/ 8.1	.324/ 8.1	.292/ 8.1	.260/ 8.1	.245/ 8.1
	13	.075/ 13.4	.088/ 13.4	.121/ 13.4	.193/ 13.4	.236/ 13.4	.283/ 13.4	.321/ 8.1	.324/ 8.1	.324/ 8.1	.270/ 8.1	.246/ 8.1	.223/ 8.1	.213/ 8.1
	15	.067/ 13.4	.077/ 13.4	.103/ 13.4	.166/ 13.4	.206/ 13.4	.253/ 13.4	.272/ 8.1	.276/ 8.1	.285/ 8.1	.240/ 8.1	.205/ 8.1	.185/ 8.1	.179/ 8.1
	17	.060/ 13.4	.069/ 13.4	.094/ 13.4	.156/ 13.4	.194/ 13.4	.241/ 13.4	.260/ 13.4	.263/ 13.4	.263/ 13.4	.218/ 13.4	.183/ 13.4	.163/ 13.4	.156/ 13.4
	19	.053/ 13.4	.060/ 13.4	.087/ 13.4	.148/ 13.4	.184/ 13.4	.231/ 13.4	.250/ 13.4	.253/ 13.4	.253/ 13.4	.208/ 13.4	.173/ 13.4	.153/ 13.4	.146/ 13.4
	21	.047/ 13.4	.053/ 13.4	.080/ 13.4	.141/ 13.4	.176/ 13.4	.223/ 13.4	.242/ 13.4	.245/ 13.4	.245/ 13.4	.200/ 13.4	.165/ 13.4	.145/ 13.4	.138/ 13.4
25	7	.078/ 16.5	.110/ 16.5	.174/ 16.5	.258/ 16.5	.332/ 16.5	.391/ 16.5	.424/ 8.1	.433/ 8.1	.424/ 6.3	.384/ 6.3	.325/ 6.3	.265/ 6.4	.236/ 6.4
	9	.074/ 16.5	.098/ 16.5	.155/ 16.5	.223/ 16.5	.291/ 16.5	.348/ 16.5	.384/ 16.5	.406/ 8.7	.400/ 8.7	.373/ 7.3	.330/ 7.3	.286/ 7.5	.267/ 7.5
	11	.070/ 16.5	.087/ 16.5	.130/ 16.5	.195/ 16.5	.261/ 16.5	.317/ 16.5	.354/ 8.7	.365/ 8.7	.352/ 8.7	.326/ 8.7	.283/ 8.7	.240/ 8.7	.250/ 8.7
	13	.065/ 16.5	.078/ 16.5	.111/ 16.5	.166/ 16.5	.230/ 16.5	.287/ 16.5	.324/ 16.5	.328/ 16.5	.328/ 16.5	.274/ 9.0	.251/ 9.0	.228/ 9.2	.218/ 9.2
	15	.059/ 16.5	.069/ 16.5	.095/ 16.5	.150/ 16.5	.214/ 16.5	.271/ 16.5	.308/ 16.5	.312/ 16.5	.312/ 16.5	.258/ 9.2	.230/ 9.2	.192/ 9.8	.185/ 9.8
	17	.054/ 16.5	.062/ 16.5	.083/ 16.5	.138/ 16.5	.202/ 16.5	.259/ 16.5	.296/ 16.5	.300/ 16.5	.300/ 16.5	.246/ 9.2	.217/ 9.2	.176/ 10.1	.155/ 10.1
	19	.048/ 16.5	.055/ 16.5	.072/ 16.5	.127/ 16.5	.191/ 16.5	.248/ 16.5	.285/ 16.5	.289/ 16.5	.289/ 16.5	.234/ 9.5	.205/ 9.5	.164/ 10.1	.131/ 10.1
	21	.043/ 16.5	.049/ 16.5	.064/ 16.5	.119/ 16.5	.183/ 16.5	.240/ 16.5	.277/ 16.5	.281/ 16.5	.281/ 16.5	.226/ 10.1	.197/ 10.1	.156/ 10.1	.112/ 11.2

NOTE: V IS SHIP SPEED IN KNOTS AND T IS WAVE PERIOD IN SECONDS.

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

DE 1078

SHORTCRESTED
RMS VER DISP IN FEET/ENCOUNTERED MODAL PERIOD, T, IN SECONDS
OF
HELICOPTER DECK HULLSEYE - 90.0 FT FORWARD OF AP AND 74.0 FT FROM HL

V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150	165	180
5	7	090/10.1	097/9.8	116/8.7	135/8.3	154/7.9	166/7.5	170/7.3	166/7.1	154/7.1	138/7.1	118/7.1	102/7.1	096/7.1
	9	144/11.6	149/11.6	161/11.2	176/10.8	190/10.5	200/9.8	204/9.2	202/9.0	194/8.7	181/8.7	168/8.5	157/8.5	153/8.5
	11	184/13.1	187/13.1	194/12.8	204/12.6	214/12.1	221/11.6	224/11.2	223/11.2	217/10.8	209/10.5	201/10.1	195/10.1	192/10.1
	13	209/14.6	210/14.6	215/14.3	222/14.3	229/14.0	233/13.4	235/13.1	235/12.8	231/12.6	226/12.6	221/12.6	217/12.6	215/12.1
	15	224/16.5	225/16.5	228/16.1	233/15.7	237/15.7	240/15.3	242/15.0	242/14.6	240/14.3	236/14.3	233/14.3	230/14.3	229/14.3
	17	242/18.5	243/18.0	245/18.0	248/17.5	241/17.5	244/17.5	245/17.0	245/16.5	243/16.5	241/16.5	239/16.5	237/16.5	237/16.5
	19	237/19.6	238/19.6	239/19.6	242/19.6	244/19.6	246/19.0	247/18.5	246/18.5	246/18.0	244/17.5	243/17.0	242/17.0	241/17.0
	21	242/22.4	242/22.4	243/22.4	245/21.7	247/21.7	248/20.9	249/20.9	249/20.3	248/19.6	247/19.6	246/19.6	245/19.6	245/19.6
10	7	078/12.8	085/12.8	103/12.8	124/12.5	142/11.6	155/7.5	160/7.3	157/7.3	147/7.1	131/7.1	111/7.1	094/7.1	087/7.1
	9	130/14.3	135/14.3	147/14.0	163/14.0	178/13.6	189/10.5	194/9.5	193/9.2	185/9.0	173/8.7	159/8.7	147/8.7	143/8.7
	11	170/15.3	173/15.3	181/15.0	192/14.6	203/14.3	211/12.8	215/12.1	214/11.2	209/10.8	201/10.5	192/10.1	185/10.1	182/10.1
	13	195/17.0	197/16.5	203/16.5	210/16.1	218/15.3	224/14.6	227/13.7	226/13.1	223/12.6	218/12.6	212/12.6	208/12.6	206/12.6
	15	212/18.5	213/18.5	217/18.0	222/17.5	227/17.0	232/16.5	234/15.7	234/15.0	232/14.6	229/14.3	225/14.3	222/14.3	221/14.3
	17	221/19.6	222/19.6	225/19.6	229/19.6	233/18.5	236/18.0	238/17.5	238/17.0	237/16.5	235/16.5	232/16.5	230/16.5	230/16.5
	19	228/21.7	229/21.7	231/21.7	233/20.9	236/20.9	239/20.3	240/19.6	240/19.0	240/18.0	238/18.0	237/17.5	235/17.0	235/17.0
	21	234/24.2	234/24.2	236/24.2	238/23.3	240/22.4	242/21.7	243/20.9	243/20.3	243/20.3	242/19.6	241/19.6	240/19.6	239/19.6
15	7	069/14.3	077/14.3	095/14.3	116/14.3	135/14.3	149/7.5	156/7.3	155/7.0	146/7.0	131/6.8	113/6.8	096/7.0	089/7.0
	9	118/17.5	123/17.5	136/17.5	153/17.5	170/17.5	182/16.8	189/9.2	190/9.0	183/9.0	172/8.7	159/8.7	147/8.7	143/8.7
	11	157/20.3	160/20.3	169/20.3	181/20.3	193/17.5	203/14.3	209/12.1	209/11.6	205/11.2	198/10.5	189/10.5	182/10.5	179/10.1
	13	183/20.3	185/20.3	191/20.3	199/20.3	208/20.3	216/17.5	220/14.3	221/13.1	219/12.8	214/12.6	208/12.6	203/12.6	202/12.6
	15	200/22.4	202/20.3	206/20.3	212/20.3	219/20.3	224/20.3	228/17.5	229/15.3	227/14.6	224/14.3	220/14.3	218/14.3	216/14.3
	17	211/22.4	213/22.4	216/21.7	220/21.7	225/20.3	229/20.3	231/18.0	232/17.5	232/17.0	230/16.5	227/16.5	225/16.5	225/16.5
	19	219/24.2	220/24.2	222/23.3	226/23.3	229/22.4	232/20.9	235/19.6	235/19.0	235/19.0	234/18.0	232/17.5	231/17.0	230/17.0
	21	226/26.2	227/26.2	228/25.1	231/25.1	233/24.2	235/23.3	237/21.7	238/20.9	238/20.3	237/19.6	236/19.6	235/19.6	235/19.6
20	7	064/13.4	071/13.4	089/13.4	110/13.4	130/13.4	145/13.4	154/13.4	153/7.0	148/7.0	135/7.0	118/7.0	103/7.1	096/7.1
	9	109/23.3	114/19.6	127/19.0	145/19.0	163/19.0	174/19.0	187/9.2	192/9.0	189/8.7	180/8.3	169/8.1	160/7.9	156/7.9
	11	146/23.3	149/23.3	158/23.3	171/23.3	187/23.3	197/19.0	206/13.4	209/11.2	208/10.8	203/10.5	196/10.1	190/10.1	188/10.1
	13	172/26.2	174/26.2	181/26.2	190/26.2	200/23.3	209/19.0	216/18.0	219/13.4	219/13.4	216/12.6	211/12.6	207/12.6	206/12.6
	15	190/26.2	192/26.2	197/26.2	203/26.2	211/23.3	218/23.3	223/19.0	226/15.3	226/15.0	224/14.3	221/14.3	219/14.3	218/14.3
	17	202/26.2	203/26.2	207/26.2	212/26.2	217/26.2	223/23.3	227/19.0	229/17.5	229/17.0	228/16.5	226/16.5	224/16.5	224/16.5
	19	211/27.3	212/27.3	214/27.3	217/27.3	222/26.2	226/23.3	229/23.3	231/19.6	232/19.5	231/18.0	230/18.0	229/17.5	229/17.5
	21	219/27.3	219/27.3	221/27.3	224/27.3	227/26.2	230/26.2	233/23.3	234/20.9	235/20.3	234/19.6	234/19.6	233/19.6	233/19.6
25	7	059/16.5	066/16.5	084/16.5	106/16.5	127/16.5	143/16.5	153/16.5	156/16.5	150/7.0	138/7.1	122/7.1	107/7.3	101/7.3
	9	101/16.5	106/16.5	119/16.5	139/16.5	158/16.5	176/16.5	189/16.5	196/16.5	197/16.5	192/8.1	184/8.1	176/8.1	173/8.1
	11	136/33.1	139/33.1	149/33.1	163/33.1	179/33.1	194/33.1	206/33.1	213/33.1	216/33.1	210/10.1	201/10.1	206/9.8	205/9.8
	13	161/33.1	164/33.1	171/33.1	181/33.1	193/33.1	205/33.1	216/33.1	223/33.1	223/33.1	223/33.1	223/33.1	226/33.1	226/33.1
	15	180/33.1	182/33.1	187/33.1	194/33.1	204/33.1	216/33.1	227/33.1	233/33.1	233/33.1	233/33.1	233/33.1	233/33.1	233/33.1
	17	193/33.1	194/33.1	197/33.1	204/33.1	211/33.1	217/33.1	223/33.1	227/33.1	227/33.1	227/33.1	227/33.1	227/33.1	227/33.1
	19	203/33.1	204/33.1	207/33.1	211/33.1	216/33.1	222/33.1	226/33.1	229/33.1	229/33.1	229/33.1	229/33.1	229/33.1	229/33.1
	21	211/33.1	212/33.1	214/33.1	217/33.1	221/33.1	225/33.1	229/33.1	233/33.1	233/33.1	233/33.1	233/33.1	233/33.1	233/33.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

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DE 1078

SHORTCRESTED
RMS VER VEL IN FPS/ENCOUNTERED MUOAL PERIOD, T * IN SECONDS
OE
HELICOPTER DECK HULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL

V T	SHIP HEADING ANGLE IN DEGREES									
	0	15	30	45	60	75	90	105	120	135
5	7 066/9.5	076/8.5	097/8.3	121/7.3	142/7.0	156/6.8	163/6.7	161/6.7	152/6.7	136/6.7
9	087/11.2	093/11.2	108/10.8	126/10.5	143/9.2	156/8.5	163/8.3	164/8.1	159/7.9	148/7.9
11	097/12.1	101/12.1	111/12.1	123/11.6	136/11.2	147/10.8	153/10.1	155/9.5	153/9.2	148/9.2
13	099/13.7	102/13.4	108/13.4	117/13.1	127/12.6	134/12.1	141/11.6	143/11.2	143/11.2	140/11.2
15	097/15.3	099/15.0	103/14.5	110/14.3	117/14.0	124/13.7	128/13.1	131/12.8	131/12.6	130/12.6
17	093/17.0	094/16.5	097/16.1	102/16.1	108/15.7	113/15.3	117/15.0	120/14.6	120/14.3	119/14.3
19	087/18.0	088/18.0	091/17.5	095/17.5	100/17.5	104/17.0	107/16.5	109/16.5	110/16.1	111/15.7
21	083/19.6	083/19.6	086/19.6	089/19.0	092/19.0	096/18.5	099/18.0	101/17.5	102/17.5	102/17.0
10	7 047/12.8	057/12.8	080/7.3	106/7.0	129/6.7	146/6.7	155/6.7	157/6.5	150/6.5	137/6.5
9	065/14.0	072/14.0	088/14.0	107/9.5	130/9.0	146/8.5	157/8.3	161/8.1	159/8.1	152/8.1
11	076/15.0	080/15.0	092/14.5	107/14.3	124/11.6	138/10.8	148/10.5	154/9.5	155/9.2	152/9.2
13	080/16.1	083/15.7	091/15.7	103/15.0	115/14.3	127/12.8	136/12.1	142/11.6	145/11.2	145/11.2
15	080/17.0	082/17.0	084/17.0	097/16.1	107/15.3	117/14.6	125/13.7	130/13.1	134/12.8	135/12.6
17	077/18.5	079/18.5	084/18.0	091/17.5	099/17.0	107/15.7	114/15.3	119/14.6	123/14.3	124/14.3
19	074/19.6	076/19.6	080/19.6	085/19.0	092/18.5	098/17.5	104/17.0	109/16.5	112/16.5	115/15.3
21	071/21.7	072/21.7	075/21.7	080/20.9	086/20.3	091/19.6	095/18.5	100/18.0	104/17.5	105/17.0
15	7 034/14.3	045/14.3	069/7.5	097/7.0	122/6.5	142/6.3	155/6.3	160/6.3	156/6.4	145/6.4
9	048/17.3	056/17.3	075/17.5	097/17.5	123/8.3	143/8.3	158/8.1	167/7.9	168/7.9	164/7.9
11	058/18.6	063/19.6	077/19.5	096/17.5	116/17.6	134/10.8	146/10.1	158/9.5	163/9.2	167/9.2
13	063/20.3	067/20.3	077/20.3	092/20.3	108/19.3	123/12.6	136/12.1	145/11.6	151/11.2	153/10.8
15	065/20.3	068/20.3	075/20.3	087/20.3	100/17.5	113/14.6	124/14.3	133/13.1	139/12.8	142/12.6
17	064/20.3	066/20.3	073/20.3	082/20.3	092/20.3	103/17.5	113/15.3	121/15.0	127/14.3	130/14.3
19	063/22.4	065/22.4	069/21.7	077/20.9	086/20.3	095/19.6	103/17.5	111/17.0	116/16.5	119/16.1
21	061/24.2	062/24.2	066/23.3	073/22.4	080/20.9	088/20.3	095/19.6	102/18.0	107/17.5	110/17.0
20	7 025/13.4	037/13.4	062/13.4	091/13.4	119/8.3	143/6.3	159/6.3	167/6.5	166/6.5	157/6.7
9	036/14.0	044/14.0	055/14.0	071/14.0	094/14.0	116/14.0	134/14.0	151/14.0	166/14.0	181/14.0
11	044/23.3	050/23.3	066/23.3	088/19.0	112/13.4	135/9.8	154/9.5	169/9.2	179/9.0	183/9.0
13	049/23.3	054/23.3	066/23.3	083/23.3	103/13.4	123/13.4	140/11.6	154/11.2	164/11.2	170/10.8
15	052/26.2	055/26.2	065/26.2	079/23.3	095/19.0	111/14.0	126/13.4	139/13.4	149/12.9	155/12.6
17	053/26.2	056/26.2	063/26.2	074/26.2	084/26.2	094/26.2	104/26.2	114/26.2	122/26.2	128/26.2
19	053/27.3	055/27.3	061/26.2	070/26.2	081/23.3	093/19.0	104/17.0	114/16.5	122/16.5	128/16.1
21	052/27.3	054/27.3	059/27.3	066/27.3	076/23.3	086/20.3	096/19.0	104/19.0	112/17.5	117/17.0
25	7 020/16.5	032/16.5	058/16.5	089/16.5	114/6.3	145/6.3	163/6.5	174/6.7	175/6.7	168/6.8
9	026/16.5	036/16.5	059/16.5	089/16.5	121/16.5	151/16.5	176/7.3	195/7.5	207/7.5	212/7.7
11	033/16.5	040/16.5	058/16.5	083/16.5	111/16.5	139/16.5	165/7.9	185/7.9	201/7.9	210/8.1
13	034/33.1	043/33.1	057/16.5	074/16.5	101/16.5	124/16.5	144/11.2	167/10.8	182/10.5	193/8.3
15	042/33.1	045/33.1	056/33.1	073/16.5	092/16.5	111/16.5	132/16.5	149/12.8	163/12.6	174/12.6
17	043/33.1	046/33.1	055/33.1	068/33.1	085/16.5	102/16.5	117/16.5	134/16.5	146/14.3	156/14.3
19	043/33.1	046/33.1	054/33.1	068/33.1	084/16.5	101/16.5	119/16.5	131/16.5	146/15.3	156/15.3
21	044/33.1	046/33.1	052/33.1	061/33.1	073/24.2	085/20.3	098/19.6	109/16.5	119/16.5	127/17.0

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MUOAL WAVE PERIOD IN SECONDS.

DE 1078														
SHORTCUTTED RMS VIEW ACC IN DISENPOWERED MODAL PERIOD, T, IN SECONDS OE														
(ACC. X 100)														
HELICOPTER DECK BULLSEYE - 90.0 FT FORWARD OF AP AND 38.0 FT FROM BL														
V	T	SHIP HEADING ANGLE IN DEGREES												
		0	15	30	45	60	75	90	105	120	135	150		
5	7	.163/8.3	.202/8.1	.285/6.7	.373/6.3	.449/5.7	.503/5.7	.531/5.7	.531/5.7	.503/5.7	.454/6.3	.393/6.3	.339/6.4	.315/6.5
	9	.176/10.8	.201/10.5	.258/10.1	.324/9.5	.384/7.5	.430/7.1	.458/7.1	.465/7.1	.452/7.1	.423/7.3	.387/7.3	.355/7.5	.342/7.5
	11	.173/11.6	.188/11.6	.226/11.2	.273/10.8	.319/9.5	.355/8.5	.379/8.3	.388/8.1	.384/8.1	.369/8.1	.349/8.3	.331/8.3	.324/8.3
	13	.160/12.6	.171/12.6	.197/12.1	.231/11.6	.265/11.2	.293/10.5	.313/9.2	.322/9.0	.322/9.0	.315/9.0	.303/9.0	.292/9.0	.288/9.0
	15	.144/13.4	.152/13.4	.171/13.1	.196/12.6	.222/12.1	.244/11.6	.260/11.2	.269/10.8	.271/10.5	.267/10.1	.260/10.1	.254/10.1	.251/10.1
	17	.129/14.3	.134/14.3	.148/14.3	.167/13.7	.188/13.1	.205/12.6	.219/12.1	.227/11.6	.229/11.2	.228/11.2	.223/11.2	.219/11.2	.217/11.2
	19	.114/15.7	.118/15.7	.129/15.3	.144/14.6	.161/13.9	.175/13.4	.186/13.1	.193/12.6	.196/12.6	.195/12.1	.192/12.1	.188/12.1	.184/12.1
	21	.102/17.0	.105/16.5	.114/16.1	.126/15.3	.139/14.5	.151/14.0	.160/13.4	.166/13.4	.169/13.1	.169/12.6	.167/12.6	.165/12.6	.164/12.6
10	7	.396/12.8	.142/7.0	.230/6.3	.326/5.7	.412/5.7	.476/5.7	.503/5.7	.535/5.7	.522/5.7	.487/5.7	.437/6.3	.388/6.3	.367/6.4
	9	.111/13.7	.139/13.7	.203/8.7	.280/7.1	.353/7.0	.413/7.0	.456/7.0	.479/7.0	.481/7.1	.465/7.3	.437/7.5	.412/7.5	.401/7.7
	11	.114/14.3	.132/14.3	.177/14.3	.234/9.5	.291/8.7	.342/8.3	.380/8.1	.404/8.1	.414/8.1	.410/8.3	.399/8.3	.386/8.3	.380/8.3
	13	.109/15.3	.121/15.0	.153/14.6	.196/14.6	.241/14.0	.282/13.4	.314/12.6	.337/12.1	.349/12.1	.351/12.1	.347/12.1	.341/12.1	.334/12.1
	15	.101/16.1	.110/16.1	.134/15.3	.166/14.6	.201/13.4	.234/12.6	.262/11.6	.282/11.2	.294/10.5	.294/10.1	.298/9.8	.295/9.8	.294/10.1
	17	.092/17.0	.099/17.0	.117/16.5	.142/15.7	.170/14.6	.197/13.4	.220/12.6	.237/11.6	.249/11.2	.254/11.2	.255/11.2	.254/11.2	.254/10.8
	19	.083/18.0	.088/18.0	.103/17.5	.123/16.5	.146/15.3	.169/14.6	.187/13.4	.202/12.6	.212/12.6	.218/12.6	.220/12.1	.220/12.1	.220/12.1
	21	.075/19.0	.079/19.0	.091/18.5	.107/17.5	.126/16.5	.145/15.3	.161/14.6	.174/13.4	.183/13.1	.188/12.8	.190/12.6	.191/12.6	.191/12.6
15	7	.531/14.3	.110/7.3	.202/5.7	.306/5.7	.405/5.7	.466/5.7	.503/5.7	.572/6.3	.572/6.3	.547/6.3	.503/6.3	.458/6.4	.437/6.4
	9	.072/17.5	.104/14.3	.175/7.7	.262/6.7	.359/6.3	.428/6.3	.489/6.4	.529/6.5	.577/6.7	.543/6.8	.525/7.0	.504/7.0	.494/7.1
	11	.076/17.5	.096/17.5	.149/11.2	.216/8.3	.287/7.3	.353/7.3	.408/7.1	.448/7.3	.472/7.3	.481/7.9	.478/8.1	.470/8.3	.466/8.3
	13	.074/20.3	.089/20.3	.127/20.3	.179/11.6	.235/10.8	.289/9.7	.336/8.7	.373/8.7	.397/8.7	.410/9.0	.413/9.0	.412/9.0	.410/9.0
	15	.071/20.3	.081/20.3	.110/20.3	.150/14.3	.195/12.1	.239/11.2	.279/10.5	.310/10.1	.333/9.5	.346/9.8	.352/9.8	.354/9.8	.353/9.8
	17	.066/20.3	.074/20.3	.096/20.3	.126/20.3	.164/14.3	.201/12.6	.237/12.1	.260/11.2	.280/10.5	.293/10.5	.300/10.5	.303/10.5	.303/10.5
	19	.061/20.3	.067/20.3	.085/20.3	.110/20.3	.140/17.5	.170/14.6	.198/13.4	.221/12.6	.238/12.1	.250/11.6	.257/11.2	.260/11.2	.260/11.2
	21	.056/21.7	.061/21.7	.075/20.3	.096/20.3	.121/17.5	.146/15.3	.169/14.6	.189/13.4	.205/12.6	.215/12.6	.222/12.6	.224/12.6	.225/12.6
20	7	.044/13.4	.093/13.4	.189/5.7	.302/5.7	.414/6.3	.510/6.3	.583/6.3	.626/6.3	.638/6.3	.622/6.4	.584/6.5	.543/6.7	.524/6.7
	9	.049/13.4	.084/13.4	.162/6.3	.260/6.3	.365/6.3	.466/6.5	.548/6.7	.610/6.8	.649/6.8	.664/7.1	.661/7.1	.650/7.3	.644/7.3
	11	.051/14.0	.075/14.0	.134/13.4	.212/6.5	.299/6.7	.384/6.7	.450/7.0	.523/7.1	.567/7.3	.594/7.3	.606/7.3	.609/7.5	.609/7.5
	13	.050/23.3	.068/23.3	.112/13.4	.174/9.2	.243/7.0	.313/7.0	.378/7.1	.433/7.1	.475/7.3	.504/7.5	.520/7.5	.527/7.5	.529/7.5
	15	.048/26.2	.057/26.2	.096/23.3	.144/13.4	.200/10.5	.257/7.1	.311/7.3	.356/7.3	.395/7.5	.422/7.5	.439/7.7	.447/7.7	.449/7.7
	17	.045/26.2	.052/26.2	.083/23.3	.122/13.4	.167/13.4	.214/13.4	.259/7.3	.299/7.3	.331/7.5	.355/7.7	.370/7.7	.378/7.7	.381/7.7
	19	.042/27.3	.048/27.3	.073/26.2	.104/13.4	.141/14.6	.181/13.4	.218/13.4	.252/11.2	.280/7.5	.300/7.7	.314/7.7	.322/7.7	.324/7.7
	21	.043/16.5	.048/16.5	.065/26.2	.090/23.3	.121/14.0	.154/14.6	.185/13.4	.215/13.4	.239/11.2	.257/12.1	.276/11.2	.276/11.2	.276/11.2
25	7	.043/16.5	.074/16.5	.185/5.7	.306/6.3	.429/6.3	.534/6.3	.625/6.3	.680/6.5	.701/6.7	.691/6.7	.658/6.8	.618/7.0	.600/7.0
	9	.039/16.5	.064/16.5	.157/16.5	.264/6.5	.371/6.7	.476/6.7	.561/7.0	.636/7.1	.677/7.3	.692/7.3	.681/7.5	.650/7.5	.613/7.5
	11	.038/16.5	.064/16.5	.128/16.5	.218/6.7	.321/6.8	.428/7.1	.529/7.3	.617/7.5	.677/7.5	.737/7.7	.767/7.7	.783/7.7	.787/7.7
	13	.037/16.5	.056/16.5	.106/16.5	.178/6.7	.260/7.0	.364/7.1	.465/7.3	.552/7.5	.612/7.7	.626/7.7	.659/7.9	.678/7.9	.683/7.9
	15	.036/33.1	.050/16.5	.089/16.5	.143/16.5	.213/7.1	.285/7.3	.357/7.5	.422/7.7	.478/7.9	.522/7.9	.553/7.9	.571/7.9	.576/7.9
	17	.035/33.1	.046/33.1	.076/16.5	.121/16.5	.176/7.1	.236/7.3	.295/7.5	.351/7.7	.398/7.9	.436/7.9	.463/7.9	.479/7.9	.484/8.1
	19	.034/33.1	.042/33.1	.068/33.1	.103/16.5	.148/16.5	.198/7.3	.254/7.7	.294/7.7	.335/7.9	.367/7.9	.391/7.9	.405/8.1	.408/8.1
	21	.032/33.1	.039/33.1	.058/33.1	.089/16.5	.127/16.5	.166/7.3	.210/7.7	.250/7.7	.284/7.9	.312/7.9	.333/8.1	.345/8.1	.349/8.1

NOTE: V IS SHIP SPEED IN KNOTS AND T IS MODAL WAVE PERIOD IN SECONDS.

7911

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

DD 963

RAO TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

DD 953

NO. OF RECORDS = 65 NO. OF FREQS = 30

REC = 1 HEADING = 0. DEG SHIP SPEED = 5. KNOTS

RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	8.067E-01	8.053E-15	9.791E-01	4.999E-17	4.500E-03	3.317E-17
.234	.250	8.028E-01	7.904E-15	9.446E-01	1.601E-16	1.100E-02	8.366E-17
.276	.300	7.790E-01	8.728E-15	8.933E-01	5.033E-16	2.238E-02	2.290E-16
.318	.350	7.294E-01	8.641E-15	8.148E-01	1.522E-15	3.921E-02	4.577E-16
.358	.400	6.503E-01	7.510E-15	6.996E-01	4.103E-15	6.002E-02	7.266E-16
.397	.450	5.433E-01	5.921E-15	5.514E-01	9.791E-15	8.082E-02	9.966E-16
.434	.500	4.166E-01	4.311E-15	3.850E-01	2.082E-14	9.528E-02	1.209E-15
.471	.550	2.854E-01	3.001E-15	2.258E-01	4.001E-14	9.673E-02	1.301E-15
.506	.600	1.688E-01	2.181E-15	1.311E-01	7.257E-14	8.200E-02	1.245E-15
.523	.625	1.211E-01	1.988E-15	5.763E-02	1.016E-13	6.941E-02	1.177E-15
.539	.650	8.223E-02	2.012E-15	2.767E-02	1.713E-13	5.482E-02	1.128E-15
.555	.675	5.257E-02	2.097E-15	1.008E-02	6.815E-13	3.979E-02	1.252E-15
.571	.700	3.153E-02	8.826E-16	2.513E-03	3.005E-13	2.593E-02	2.912E-16
.587	.725	1.785E-02	9.108E-16	1.752E-03	1.152E-13	1.468E-02	2.745E-16
.602	.750	9.845E-03	8.894E-16	4.535E-03	9.228E-14	7.011E-03	1.944E-16
.632	.800	3.553E-03	5.554E-16	1.050E-02	6.885E-14	2.558E-03	5.247E-17
.650	.850	1.635E-03	3.294E-16	8.471E-03	3.742E-14	6.907E-03	8.632E-18
.687	.900	3.151E-04	9.910E-17	1.973E-03	1.096E-14	9.180E-03	1.850E-17
.713	.950	5.160E-05	1.973E-17	3.110E-04	4.214E-16	5.098E-03	2.519E-17
.739	1.000	4.803E-04	1.412E-17	3.387E-03	1.137E-15	1.309E-03	1.919E-17
.761	1.050	3.615E-04	1.093E-17	3.747E-03	1.898E-15	3.190E-03	1.477E-17
.783	1.100	2.616E-05	1.455E-17	1.077E-03	5.588E-16	4.961E-03	1.320E-17
.803	1.150	2.326E-04	2.971E-17	1.310E-03	1.379E-15	1.975E-03	9.001E-18
.822	1.200	3.119E-04	3.085E-17	2.775E-03	2.559E-15	8.849E-04	5.460E-18
.840	1.250	2.770E-05	1.980E-17	1.228E-03	1.114E-15	3.233E-03	6.295E-18
.857	1.300	1.358E-04	1.329E-17	4.962E-04	1.124E-16	1.926E-03	8.475E-18
.886	1.400	3.728E-05	9.384E-18	8.801E-04	4.021E-16	2.415E-03	5.604E-18
.920	1.600	1.040E-04	5.742E-18	5.285E-04	3.592E-16	4.033E-04	4.542E-18
.950	1.800	1.385E-05	4.368E-18	1.316E-04	5.092E-17	8.658E-04	2.878E-18
.951	2.000	1.971E-05	4.155E-18	7.359E-05	1.591E-17	5.426E-04	2.482E-18

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	-95.9	-90.0	.2	-112.9	90.2	-169.9
.234	.250	-97.2	-90.1	.2	-121.7	88.4	-158.9
.276	.300	-98.5	-88.7	.2	-131.2	85.4	-170.3
.313	.350	-99.8	-88.5	.1	-137.8	84.3	-167.6
.353	.400	-101.1	-89.7	.2	-141.1	82.0	-163.2
.397	.450	-102.6	-92.3	.5	-141.9	79.5	-158.1
.434	.500	-104.4	-95.8	1.1	-140.6	75.4	-152.6
.471	.550	-106.8	-103.7	2.4	-136.7	72.7	-146.1
.506	.600	-110.5	-112.0	5.0	-127.5	67.9	-137.3
.523	.625	-113.1	-114.3	7.5	-118.2	64.9	-130.3
.539	.650	-116.6	-109.5	11.9	-99.5	61.2	-116.9
.555	.675	-121.3	-64.2	21.4	-43.6	55.6	-65.5
.571	.700	-127.8	129.3	49.2	103.8	50.4	146.9
.587	.725	-137.0	171.8	114.8	153.1	41.4	-167.1
.602	.750	-149.8	-179.0	146.6	174.2	26.1	-155.3
.632	.800	176.0	-170.6	162.0	-166.4	-48.4	-151.0
.660	.850	146.3	-161.0	168.0	-157.1	-98.3	164.8
.687	.900	129.7	-141.7	176.4	-151.1	-118.7	121.3
.713	.950	-55.4	-90.0	-32.8	-151.8	-140.0	131.6
.738	1.000	-63.1	-15.8	-9.8	49.7	161.4	163.0
.761	1.050	-71.1	42.4	2.9	50.7	86.9	-149.9
.783	1.100	-128.4	116.2	38.6	107.3	61.3	-102.3
.803	1.150	137.8	163.4	131.6	-167.5	33.3	-53.6
.822	1.200	133.2	-159.4	164.3	-144.0	-67.7	11.0
.840	1.250	151.5	-111.6	-165.6	-125.5	-112.8	82.9
.857	1.300	-62.1	-51.6	-62.8	-11.5	-139.6	141.1
.886	1.400	-22.7	92.2	35.3	80.7	67.8	-101.7
.923	1.600	-70.8	-7.1	-31.9	34.5	169.1	-171.1
.950	1.800	-79.9	-35.0	-75.1	5.9	-140.2	158.5
.951	2.000	-59.4	-36.0	-103.8	-12.6	-134.1	161.1

REC = 2

HEADING = 0. DEG
PAO

SHIP SPEED = 10. KNOTS
WAVEHT)**2

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	1.004E+00	9.321E-15	9.719E-01	5.117E-17	3.630E-03	3.5057E-17
.227	.250	1.067E+00	9.396E-15	9.737E-01	1.599E-16	3.620E-03	8.501E-17
.253	.300	1.103E+00	9.460E-15	8.709E-01	4.522E-16	1.949E-02	2.082E-16
.286	.350	1.105E+00	1.004E-14	7.371E-01	1.242E-15	3.422E-02	5.139E-16
.321	.400	1.059E+00	9.686E-15	5.689E-01	3.003E-15	5.192E-02	9.400E-16
.334	.450	9.502E-01	7.664E-15	5.214E-01	6.132E-15	6.883E-02	1.338E-15
.369	.500	7.893E-01	5.715E-15	3.608E-01	1.022E-14	7.956E-02	1.684E-15
.394	.550	5.829E-01	3.844E-15	2.405E-01	1.348E-14	7.898E-02	1.799E-15
.411	.600	3.743E-01	2.348E-15	9.452E-02	1.253E-14	6.539E-02	1.568E-15
.420	.625	2.801E-01	1.776E-15	5.424E-02	9.912E-15	5.470E-02	1.324E-15
.438	.650	1.986E-01	1.315E-15	2.637E-02	6.958E-15	4.271E-02	1.022E-15
.436	.675	1.323E-01	9.486E-16	9.794E-03	3.368E-15	3.655E-02	7.009E-16
.443	.700	8.237E-02	6.566E-16	2.342E-03	2.448E-15	1.978E-02	4.066E-16
.449	.725	4.886E-02	4.241E-16	1.207E-03	5.612E-15	1.111E-02	1.845E-16
.455	.750	2.810E-02	2.435E-16	7.483E-03	1.401E-14	5.286E-03	8.692E-16
.464	.775	1.163E-02	3.516E-17	5.028E-03	4.219E-14	1.873E-03	1.431E-16
.471	.850	6.644E-03	1.208E-17	6.012E-03	5.858E-14	4.333E-03	3.601E-16
.475	.900	1.760E-03	6.872E-17	1.453E-03	3.693E-14	5.219E-03	3.327E-16
.476	.950	1.261E-04	8.663E-17	2.931E-04	4.644E-15	2.716E-03	1.331E-16
.475	1.000	2.211E-03	5.373E-17	2.446E-03	4.344E-15	7.501E-04	1.872E-16
.471	1.050	1.985E-03	2.634E-17	2.244E-03	1.452E-14	1.494E-03	2.391E-16
.455	1.100	3.060E-05	4.591E-17	2.789E-04	5.418E-15	2.015E-03	1.809E-16
.445	1.150	1.991E-03	5.796E-17	4.668E-04	5.149E-15	8.163E-04	9.315E-17
.444	1.200	3.442E-03	1.151E-17	1.393E-03	1.812E-14	3.168E-04	2.228E-16
.473	1.250	7.018E-04	4.442E-17	4.465E-04	1.162E-14	9.185E-04	2.467E-16
.443	1.300	2.057E-03	1.134E-16	1.327E-04	2.385E-16	5.463E-04	9.252E-17
.371	1.400	1.882E-03	7.447E-17	1.990E-04	2.898E-15	4.792E-04	2.111E-16
.256	1.600	1.377E-02	2.183E-16	1.855E-04	3.588E-16	3.312E-05	4.828E-17
.093	1.800	6.773E-02	1.463E-14	2.650E-04	3.372E-16	6.537E-05	8.948E-16
.110	2.000	2.829E-02	1.355E-14	3.214E-05	4.247E-16	1.728E-05	8.418E-16

PHASE (MOTION-HAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	-95.7	-95.4	.3	-116.9	88.0	-163.1
.217	.250	-96.9	-95.6	.4	-124.8	87.0	-163.4
.253	.300	-98.0	-95.7	.4	-132.4	85.6	-163.5
.285	.350	-98.3	-95.3	.3	-139.1	83.4	-163.6
.315	.400	-100.5	-95.5	.3	-142.8	81.0	-160.7
.344	.450	-101.9	-95.3	.3	-144.1	78.2	-156.8
.369	.500	-103.6	-95.9	.5	-143.5	74.8	-152.4
.391	.550	-105.9	-106.0	1.1	-141.2	70.6	-147.4
.411	.600	-109.3	-116.4	2.6	-135.6	65.1	-141.5
.420	.625	-111.8	-122.9	4.3	-130.2	61.8	-138.0
.428	.650	-115.1	-135.1	7.5	-120.3	57.7	-132.7
.436	.675	-119.6	-138.0	14.9	-98.9	52.7	-128.2
.443	.700	-125.3	-146.3	37.8	-53.3	46.0	-120.3
.449	.725	-134.9	-154.9	105.6	-12.9	36.5	-106.3
.455	.750	-147.6	-163.9	141.4	5.1	20.8	-74.1
.464	.800	-177.2	170.1	155.0	19.2	-52.0	16.6
.471	.850	148.8	28.1	156.6	25.5	-103.4	42.0
.475	.900	137.5	-9.3	153.3	29.0	-126.4	60.6
.475	.950	-79.9	-34.8	-12.5	25.8	-150.9	96.6
.475	1.000	-63.9	-69.0	-20.9	-127.4	148.9	177.9
.471	1.050	-64.7	-135.2	-22.3	-126.3	76.1	-140.6
.465	1.100	-104.4	164.2	-13.3	-103.4	46.4	-108.5
.456	1.150	129.2	132.6	134.4	2.4	14.5	-39.7
.444	1.200	133.9	95.0	137.7	28.8	-80.0	21.5
.430	1.250	164.5	-29.2	131.8	37.9	-133.0	54.7
.413	1.300	-72.0	-43.9	-30.8	66.4	-154.7	112.5
.371	1.400	-7.1	136.2	-52.3	-134.2	41.5	-125.0
.256	1.500	-70.1	-60.3	-51.1	-119.9	162.5	-164.4
.098	1.600	-107.6	-48.6	22.7	-30.7	-125.6	12.7
.101	2.000	-68.4	-22.9	54.1	-11.7	-108.3	27.9

REC = 3	HEADING =	C. DEG	SHIP SPEED = 15. KNOTS	RAO	(MOTION/HAVENT)**2	RAO	
WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	1.275E+00	1.115E-14	9.505E-01	5.505E-17	3.204E-03	2.236E-17
.201	.250	1.449E+00	1.159E-14	9.255E-01	1.703E-16	8.276E-03	7.008E-17
.229	.300	1.619E+00	1.189E-14	8.556E-01	4.603E-16	1.698E-02	1.856E-16
.254	.350	1.762E+00	1.193E-14	7.585E-01	1.115E-15	2.934E-02	4.356E-16
.274	.400	1.847E+00	1.176E-14	6.367E-01	2.451E-15	4.439E-02	9.527E-16
.291	.450	1.834E+00	1.038E-14	4.893E-01	4.542E-15	5.829E-02	1.611E-15
.303	.500	1.695E+00	8.278E-15	3.329E-01	6.754E-15	6.642E-02	2.275E-15
.312	.550	1.421E+00	6.049E-15	1.903E-01	7.748E-15	6.481E-02	2.706E-15
.317	.600	1.046E+00	4.250E-15	8.833E-02	6.219E-15	5.267E-02	2.645E-15
.317	.625	8.433E-01	3.613E-15	4.705E-02	4.580E-15	4.365E-02	2.386E-15
.317	.650	6.464E-01	3.149E-15	2.242E-02	2.746E-15	3.373E-02	1.992E-15
.315	.675	4.677E-01	2.814E-15	8.100E-03	1.176E-15	2.403E-02	1.505E-15
.314	.700	3.178E-01	2.537E-15	1.868E-03	3.219E-16	1.548E-02	9.912E-16
.311	.725	2.031E-01	2.245E-15	1.029E-03	4.743E-16	8.710E-03	5.277E-16
.307	.750	1.256E-01	1.878E-15	2.856E-03	1.620E-15	4.173E-03	1.881E-16
.295	.800	6.185E-02	9.108E-16	6.193E-03	5.173E-15	1.267E-03	3.079E-17
.281	.850	5.056E-02	1.261E-16	4.120E-03	6.405E-15	2.605E-03	3.665E-16
.262	.900	2.492E-02	2.121E-16	5.800E-04	3.815E-15	3.123E-03	5.342E-16
.233	.950	1.248E-04	7.891E-16	3.857E-04	9.922E-16	1.657E-03	2.678E-16
.213	1.000	3.744E-02	5.889E-16	1.794E-03	4.714E-16	3.927E-04	1.031E-16
.182	1.050	9.464E-02	1.219E-16	1.331E-03	8.755E-16	6.087E-04	6.662E-16
.147	1.100	2.999E-02	5.088E-15	7.947E-05	2.701E-16	1.092E-03	1.195E-15
.108	1.150	2.627E-01	1.813E-14	4.406E-04	2.074E-16	7.437E-04	3.399E-16
.065	1.200	6.301E+00	1.884E-14	1.029E-03	1.474E-15	2.508E-04	8.302E-16
.020	1.250	3.521E+02	1.660E-12	4.594E-04	1.487E-15	5.122E-04	1.052E-14
.031	1.300	1.335E+01	2.641E-12	3.703E-04	3.600E-16	6.810E-04	1.074E-14
.143	1.400	1.052E-01	3.729E-15	1.413E-04	7.433E-16	1.772E-04	1.045E-15
.416	1.600	2.214E-03	2.482E-17	2.717E-04	1.562E-15	6.228E-05	5.505E-17
.752	1.800	4.725E-05	5.148E-18	2.824E-06	2.442E-17	3.278E-04	2.955E-18
1.151	2.000	6.493E-06	1.539E-18	3.985E-04	8.516E-18	3.861E-04	1.216E-18

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.169	.200	-95.5	-90.7	.3	-121.7	85.0	-152.2
.201	.250	-96.5	-91.1	.4	-129.0	85.2	-154.4
.229	.300	-97.6	-91.8	.5	-135.5	84.2	-156.2
.254	.350	-98.6	-92.8	.5	-141.0	82.7	-156.5
.274	.400	-99.7	-94.3	.3	-145.0	80.2	-155.9
.291	.450	-100.9	-97.7	.2	-146.9	77.3	-153.5
.303	.500	-102.4	-103.6	.1	-147.4	73.7	-150.3
.312	.550	-104.4	-113.0	.2	-146.5	69.4	-146.5
.317	.600	-107.4	-127.1	1.2	-143.9	63.9	-142.2
.317	.625	-109.6	-135.8	2.6	-141.2	60.6	-139.9
.317	.650	-112.5	-145.0	5.6	-136.5	56.6	-137.3
.316	.675	-116.5	-154.2	12.8	-125.9	51.7	-134.4
.314	.700	-122.2	-162.5	36.3	-90.3	45.4	-131.1
.311	.725	-130.6	-174.9	104.7	-19.5	36.4	-126.9
.307	.750	-142.8	-179.6	138.5	4.7	21.9	-120.2
.296	.800	-179.3	-199.5	150.1	15.9	-46.0	33.5
.281	.850	149.8	-161.1	149.7	16.9	-99.3	57.7
.262	.900	136.5	-48.4	140.2	10.8	-121.0	68.0
.239	.950	-156.0	-39.3	-15.1	-14.4	-141.6	83.3
.213	1.000	-58.6	-42.7	-28.1	-93.8	168.9	166.5
.182	1.050	-57.8	173.0	-35.1	-130.3	90.7	-139.9
.147	1.100	-65.7	148.1	-51.3	-150.0	64.1	-127.0
.108	1.150	146.3	139.0	141.8	57.0	44.5	-123.0
.066	1.200	146.5	108.1	127.4	36.8	.2	73.9
.020	1.250	154.4	-11.4	79.6	20.0	-53.2	75.3
.031	1.300	-59.4	-51.4	-18.9	-33.7	-105.7	38.2
.143	1.400	-9.2	138.5	-70.0	-150.9	72.4	-134.8
.416	1.600	-73.3	-58.7	-47.6	-148.5	137.6	-175.5
.752	1.800	-88.7	-26.5	-135.3	7.2	-166.3	153.6
1.151	2.000	-66.0	-20.2	-25.0	40.7	-104.3	-177.4

REC =	4	HEADING =	0 . DEG	SHIP SPEED = 20 . KNOTS	RAO	(MOTION/VAVEHT)**2	ROLL	PITCH	YAW
WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW		
158	1200	1.639E+00	1.397E-14	9.591E-01	6.136E-17	2.618E-03	1.292E-17		
184	250	2.023E+00	1.584E-14	9.147E-01	1.895E-16	7.447E-03	4.961E-17		
206	300	2.482E+00	1.686E-14	8.429E-01	5.027E-16	1.461E-02	1.461E-16		
221	350	3.003E+00	1.779E-14	7.417E-01	1.157E-15	2.531E-02	3.614E-16		
232	400	3.555E+00	1.790E-14	6.103E-01	2.283E-15	3.764E-02	7.492E-16		
245	450	4.074E+00	1.708E-14	4.588E-01	3.809E-15	4.877E-02	1.356E-15		
237	500	4.450E+00	1.535E-14	3.046E-01	5.239E-15	5.905E-02	2.163E-15		
232	550	4.590E+00	1.320E-14	1.594E-01	5.796E-15	5.347E-02	3.025E-15		
222	600	4.551E+00	1.145E-14	7.139E-02	4.763E-15	4.357E-02	3.611E-15		
215	625	4.473E+00	1.114E-14	3.924E-02	3.705E-15	3.636E-02	3.669E-15		
205	650	3.596E+00	1.125E-14	1.804E-02	2.433E-15	2.850E-02	3.510E-15		
197	675	3.238E+00	1.173E-14	6.273E-03	1.323E-15	2.075E-02	3.126E-15		
173	725	2.422E+00	1.396E-14	1.514E-03	3.176E-17	3.290E-03	1.889E-15		
153	750	1.767E+00	1.465E-14	3.393E-03	1.135E-16	4.363E-03	1.131E-15		
128	800	1.507E+00	1.319E-14	5.965E-03	1.335E-15	1.191E-03	3.501E-16		
092	850	3.721E+00	6.155E-15	3.444E-03	2.513E-15	1.899E-03	8.449E-16		
050	900	2.713E+01	5.436E-15	3.745E-04	2.151E-15	3.427E-03	1.212E-15		
012	950	2.423E+02	3.628E-15	1.359E-03	1.130E-15	4.339E-03	1.618E-14		
050	1000	9.781E+00	3.545E-12	2.198E-03	5.685E-16	8.948E-04	1.250E-16		
107	1050	8.130E-01	1.883E-15	1.215E-03	8.483E-16	4.305E-04	8.443E-16		
239	1100	1.623E-02	9.872E-16	4.447E-05	3.450E-16	9.519E-04	6.531E-16		
312	1200	1.376E-02	2.898E-17	1.131E-03	4.534E-15	8.853E-05	2.426E-16		
390	1250	1.031E-03	1.614E-16	4.042E-04	7.982E-15	5.713E-04	2.508E-16		
474	1300	1.688E-03	7.330E-17	1.085E-04	1.077E-15	4.031E-04	7.301E-17		
657	1400	1.508E-04	4.461E-17	4.877E-04	6.838E-15	7.259E-04	2.313E-18		
1087	1600	5.043E-05	1.860E-18	5.781E-04	1.258E-16	2.040E-04	2.453E-18		
1602	1800	5.095E-06	2.607E-19	3.765E-04	4.106E-18	1.327E-05	2.882E-19		
2001	2000	1.448E-06	7.024E-21	1.764E-05	5.247E-20	9.918E-06	4.774E-20		

PHASE (MOION-HAVEIT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.158	.200	-95.3	-91.1	.4	-126.2	80.8	-131.2
.184	.250	-96.3	-91.5	.4	-133.1	82.1	-140.5
.206	.300	-97.2	-92.4	.4	-139.1	82.2	-144.6
.221	.350	-98.0	-94.0	.3	-144.0	81.0	-146.7
.232	.400	-99.8	-96.7	.2	-147.6	79.3	-146.9
.237	.450	-99.6	-100.9	.1	-150.2	76.8	-146.2
.238	.500	-100.7	-107.7	.1	-152.1	73.7	-145.1
.238	.550	-102.1	-118.2	.0	-153.7	69.7	-143.6
.222	.600	-104.3	-133.7	1.2	-155.1	64.9	-142.2
.215	.625	-105.9	-143.3	3.1	-155.9	62.0	-141.7
.206	.650	-108.1	-153.4	7.1	-157.1	58.7	-141.6
.197	.675	-111.1	-163.5	17.3	-158.9	54.7	-142.0
.186	.700	-115.6	-173.2	48.4	-161.9	49.4	-143.0
.173	.725	-122.2	-178.0	107.7	-179.8	42.2	-145.6
.159	.750	-132.1	169.9	132.8	34.4	31.3	-152.0
.128	.800	-156.6	154.3	141.9	22.7	-19.2	161.7
.092	.850	157.3	138.0	137.3	16.2	-74.5	102.7
.050	.900	138.0	-40.5	100.3	3.3	-93.4	78.3
.012	.950	101.3	-70.8	-26.8	-26.0	-103.7	20.9
.050	1.000	-47.9	-73.2	-37.3	-83.0	-146.2	-3.6
.107	1.050	-56.2	-153.5	-41.5	-130.5	110.7	-119.9
.170	1.100	-65.8	147.4	-40.8	-146.7	66.9	-122.0
.239	1.150	132.3	147.6	132.3	32.7	37.9	-74.5
.312	1.200	135.6	-148.1	132.7	27.8	-72.1	25.8
.390	1.250	164.5	-35.9	136.0	36.5	-131.0	59.3
.474	1.300	-71.7	-22.8	-42.7	85.1	-159.6	115.3
.657	1.400	-8.1	68.9	.4	48.9	50.1	-98.9
1.087	1.600	-71.4	1.6	-25.9	38.2	179.9	-159.8
1.602	1.800	-160.8	-12.0	14.9	69.1	-51.0	-152.4
2.200	2.000	-125.4	90.0	49.9	57.3	-106.0	-147.3

REC = 5 HEADING = 0. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/AVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.147	.200	2.144E+00	1.840E-14	9.554E-01	6.841E-17	2.096E-03	9.359E-18
.163	.250	2.918E+00	2.259E-14	9.099E-01	2.134E-16	5.914E-03	3.232E-17
.182	.300	4.016E+00	2.733E-14	8.353E-01	5.630E-16	1.241E-02	9.895E-17
.189	.350	5.897E+00	3.290E-14	7.296E-01	1.270E-15	2.150E-02	2.571E-16
.190	.400	7.859E+00	3.955E-14	5.960E-01	2.453E-15	3.196E-02	5.821E-16
.184	.450	1.121E+01	4.785E-14	4.441E-01	4.039E-15	4.388E-02	1.161E-15
.172	.500	1.635E+01	5.961E-14	2.908E-01	5.567E-15	4.567E-02	2.021E-15
.153	.550	2.504E+01	8.045E-14	1.570E-01	6.299E-15	4.558E-02	2.962E-15
.127	.600	4.223E+01	1.283E-13	6.349E-02	5.702E-15	3.811E-02	3.801E-15
.112	.625	5.920E+01	1.810E-13	3.364E-02	4.818E-15	3.283E-02	3.917E-15
.095	.650	9.106E+01	2.862E-13	1.489E-02	3.656E-15	2.734E-02	3.763E-15
.077	.675	1.613E+02	5.497E-13	5.500E-03	2.506E-15	2.113E-02	3.933E-15
.057	.700	3.895E+02	1.449E-12	3.340E-03	1.390E-15	1.655E-02	4.681E-15
.035	.725	1.769E+03	7.770E-12	5.879E-03	6.060E-16	1.530E-02	1.032E-14
.012	.750	7.809E+04	3.743E-10	1.140E-02	2.453E-16	1.265E-02	8.519E-14
.040	.800	1.772E+02	1.086E-12	7.784E-03	7.945E-16	2.779E-03	1.582E-15
.098	.850	2.803E+00	5.151E-15	2.871E-03	2.583E-15	1.747E-03	4.703E-15
.163	.900	1.767E-01	1.543E-15	1.876E-04	2.783E-15	2.296E-03	6.331E-16
.235	.950	1.419E-04	1.139E-15	5.502E-04	9.943E-16	1.226E-03	1.878E-16
.313	1.000	9.569E-03	1.214E-16	2.043E-03	6.709E-16	2.146E-04	1.397E-16
.397	1.050	3.859E-03	6.449E-17	1.977E-03	5.761E-15	8.212E-04	2.368E-16
.488	1.100	2.195E-05	1.366E-16	5.287E-04	1.218E-14	1.389E-03	1.724E-16
.586	1.150	8.021E-04	5.442E-16	6.120E-04	6.169E-14	5.523E-04	2.652E-17
.691	1.200	6.064E-04	9.728E-17	1.629E-03	1.171E-14	3.038E-04	1.194E-18
.801	1.250	3.441E-05	1.894E-17	1.591E-03	1.702E-15	1.383E-03	6.259E-18
.918	1.300	1.035E-04	8.642E-18	1.410E-03	1.031E-16	8.979E-04	7.593E-18
1.172	1.400	1.829E-05	2.576E-18	3.733E-03	4.466E-17	1.421E-03	2.051E-18
1.760	1.600	1.869E-05	1.686E-19	4.800E-04	5.337E-18	8.867E-05	2.872E-19
2.454	1.800	7.417E-07	3.422E-20	1.627E-06	6.565E-20	3.242E-07	4.589E-21
3.252	2.000	9.660E-07	2.171E-20	1.195E-05	1.617E-19	1.302E-05	2.845E-21

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.147	.200	-95.0	-91.4	.3	-129.4	74.7	-91.2
.168	.250	-96.0	-91.8	.3	-136.3	77.3	-113.9
.182	.300	-96.7	-92.8	.2	-141.9	78.6	-122.5
.183	.350	-97.3	-94.4	.0	-146.4	78.4	-128.6
.191	.400	-97.8	-95.9	-.2	-149.8	77.2	-128.2
.184	.450	-98.4	-100.7	-.5	-152.6	75.2	-128.0
.172	.500	-98.9	-106.0	-.7	-154.9	72.7	-126.0
.153	.550	-99.6	-112.6	-.2	-157.2	70.2	-122.0
.127	.600	-100.9	-119.9	2.1	-160.1	66.9	-115.9
.112	.625	-101.8	-123.0	5.8	-162.3	65.4	-110.7
.095	.650	-103.0	-125.0	14.4	-165.5	64.3	-103.1
.077	.675	-105.2	-126.9	33.4	-169.5	61.4	-91.2
.057	.700	-108.0	-127.6	75.6	-177.6	59.6	-73.6
.035	.725	-112.5	-129.4	106.9	167.2	56.7	-54.9
.012	.750	-118.4	-133.8	112.2	127.9	52.5	-47.7
.040	.800	-153.5	167.0	123.4	36.6	15.6	-137.0
.093	.850	156.9	131.4	134.2	17.0	-65.3	106.1
.163	.900	136.1	-34.2	131.5	8.1	-102.0	74.1
.235	.950	-160.9	-34.9	-29.9	-9.7	-128.6	87.7
.313	1.000	-62.0	-10.2	-28.2	-121.4	162.7	176.1
.397	1.050	-62.9	146.1	-18.4	-130.7	77.7	-138.3
.488	1.100	-104.3	-179.7	16.8	-100.1	54.3	-101.1
.585	1.150	129.2	140.0	117.9	147.3	26.7	-173.3
.690	1.200	133.2	-163.9	160.3	-156.6	-77.6	-15.8
.801	1.250	163.7	-166.2	-149.7	-131.7	-115.2	90.0
.918	1.300	-64.9	-38.1	-75.7	-14.0	-132.8	146.1
1.172	1.400	-22.8	166.8	155.0	84.4	108.4	-93.0
1.760	1.600	-72.0	-21.2	51.3	38.3	-125.4	-140.7
2.454	1.800	-129.0	-19.5	19.3	165.2	-143.0	-90.0
3.252	2.000	-128.9	-26.8	46.2	126.6	-123.9	-90.0

REC = 6 HEADING = 15. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.130	.200	7.510E-01	7.204E-02	9.806E-01	4.947E-04	4.189E-03	2.766E-04
.234	.250	7.471E-01	7.080E-02	9.482E-01	1.414E-03	1.027E-02	6.973E-04
.277	.300	7.258E-01	7.875E-02	9.009E-01	4.412E-03	2.099E-02	1.927E-03
.319	.350	6.819E-01	7.838E-02	8.278E-01	1.331E-02	3.701E-02	3.850E-03
.359	.400	6.119E-01	6.884E-02	7.191E-01	3.616E-02	5.719E-02	6.138E-03
.393	.450	5.168E-01	5.527E-02	5.770E-01	8.733E-02	7.795E-02	8.497E-03
.417	.500	4.029E-01	4.146E-02	4.142E-01	1.925E-01	9.364E-02	1.047E-02
.473	.550	2.839E-01	3.019E-02	2.537E-01	3.868E-01	9.767E-02	1.152E-02
.509	.600	1.735E-01	2.295E-02	1.223E-01	7.352E-01	8.614E-02	1.116E-02
.526	.625	1.275E-01	2.029E-02	7.404E-02	1.002E+00	7.493E-02	1.009E-02
.543	.650	8.903E-02	1.563E-02	3.896E-02	1.275E+00	6.125E-02	7.377E-03
.560	.675	5.875E-02	4.702E-03	1.653E-02	1.036E+00	4.648E-02	2.146E-03
.576	.700	3.652E-02	1.254E-04	4.919E-03	4.337E-01	3.215E-02	3.172E-04
.592	.725	2.137E-02	2.541E-03	1.384E-03	3.278E-01	1.974E-02	8.254E-04
.607	.750	1.196E-02	4.439E-03	2.869E-03	3.776E-01	1.045E-02	8.913E-04
.633	.800	4.065E-03	4.859E-03	9.810E-03	4.482E-01	2.555E-03	3.420E-04
.667	.850	1.936E-03	2.987E-03	1.023E-02	2.918E-01	5.618E-03	9.049E-05
.695	.900	6.075E-04	1.092E-03	3.921E-03	1.157E-01	9.505E-03	1.750E-04
.721	.950	1.212E-06	2.295E-04	8.531E-05	1.347E-02	7.028E-03	2.330E-04
.747	1.000	3.101E-04	1.310E-04	2.343E-03	3.234E-03	2.038E-03	1.768E-04
.771	1.050	4.351E-04	1.101E-04	4.318E-03	1.997E-02	2.137E-03	1.296E-04
.793	1.100	9.142E-05	8.500E-05	2.127E-03	7.244E-03	5.085E-03	1.201E-04
.815	1.150	9.690E-05	2.012E-04	8.417E-04	5.473E-03	3.533E-03	8.927E-05
.835	1.200	3.170E-04	2.741E-04	2.456E-03	1.814E-02	6.705E-04	5.238E-05
.854	1.250	1.275E-04	1.943E-04	2.098E-03	1.477E-02	2.455E-03	5.126E-05
.872	1.300	2.235E-05	1.282E-04	5.013E-04	1.552E-03	3.137E-03	6.786E-05
.893	1.400	1.278E-04	6.847E-05	1.326E-03	5.757E-03	1.695E-03	5.667E-05
.911	1.500	4.775E-05	7.100E-05	4.515E-04	8.726E-04	1.103E-03	3.545E-05
.923	1.600	4.378E-06	2.882E-05	1.212E-04	7.096E-04	9.953E-04	2.011E-05
.936	2.000	2.172E-06	2.121E-05	2.466E-05	8.683E-04	4.311E-04	1.831E-05

PHASE (MOTION-WAVEHT)

WE	ME	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	.200	-96.0	90.0	.2	68.2	90.3	10.1
.234	.250	.250	-97.3	89.9	.2	59.9	88.6	11.0
.277	.300	.300	-98.6	91.4	.1	50.7	86.5	9.3
.319	.350	.350	-99.9	91.5	.1	44.5	84.5	12.0
.359	.400	.400	-101.2	90.4	.1	41.8	82.3	16.5
.399	.450	.450	-102.7	88.1	.4	41.8	79.9	21.6
.437	.500	.500	-104.4	84.1	1.0	44.6	77.0	27.5
.473	.550	.550	-106.7	78.5	2.1	51.3	73.4	34.7
.509	.600	.600	-110.2	73.9	4.2	66.2	63.9	45.8
.526	.625	.625	-112.6	75.7	6.2	81.5	66.1	55.3
.543	.650	.650	-115.7	86.5	9.5	113.1	62.7	71.7
.560	.675	.675	-119.8	111.7	15.8	163.5	58.6	93.4
.576	.700	.700	-125.5	-2.0	31.3	-124.8	53.3	41.2
.592	.725	.725	-133.4	-13.1	81.6	-64.9	45.9	18.1
.607	.750	.750	-144.2	-7.3	135.5	-31.5	34.5	20.3
.638	.800	.800	-176.1	.4	180.5	-2.6	-24.3	18.0
.667	.850	.850	151.3	9.1	167.6	10.3	-89.5	-25.9
.695	.900	.900	131.3	25.5	174.8	18.3	-112.9	-63.0
.721	.950	.950	71.7	66.9	-117.5	22.6	-131.5	-56.0
.747	1.000	1.000	-60.8	140.5	-14.0	-137.3	-169.3	-28.4
.771	1.050	1.050	-68.2	-166.5	-1.0	-131.9	103.9	16.4
.793	1.100	1.100	-89.1	-93.2	21.7	-105.9	69.8	63.4
.815	1.150	1.150	146.7	-34.5	101.2	-14.6	47.9	108.8
.835	1.200	1.200	131.7	1.6	155.0	22.9	-16.6	167.1
.854	1.250	1.250	133.6	43.3	-177.3	40.0	-99.5	-122.4
.872	1.300	1.300	-75.5	100.6	-113.2	30.3	-124.6	-62.5
.903	1.400	1.400	-46.2	-126.4	14.6	-123.5	85.2	48.7
.951	1.500	1.500	-83.7	134.1	-68.0	172.8	-139.6	-27.7
.979	1.800	1.800	131.3	97.9	-128.2	65.9	-105.2	-74.1
.985	2.000	2.000	87.3	89.3	159.3	55.5	-80.1	-86.0

REC = 7 HEADING = 15. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVENT)**2

WE	H	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.150	.200	9.301E-01	8.294E-02	9.735E-01	4.546E-04	3.549E-03	2.544E-04
.218	.250	9.819E-01	8.365E-02	9.375E-01	1.413E-03	8.953E-03	7.060E-04
.254	.300	1.014E+00	8.517E-02	8.789E-01	3.987E-03	1.826E-02	1.768E-03
.288	.350	1.016E+00	9.061E-02	8.005E-01	1.096E-02	3.230E-02	4.328E-03
.319	.400	9.749E-01	8.422E-02	6.883E-01	2.577E-02	4.949E-02	7.658E-03
.347	.450	8.821E-01	7.050E-02	5.466E-01	5.587E-02	6.653E-02	1.133E-02
.373	.500	7.394E-01	5.370E-02	3.889E-01	9.709E-02	7.840E-02	1.447E-02
.397	.550	5.597E-01	3.711E-02	2.371E-01	1.349E-01	8.004E-02	1.585E-02
.417	.600	3.709E-01	2.333E-02	1.146E-01	1.379E-01	6.902E-02	1.440E-02
.427	.625	2.834E-01	1.784E-02	6.981E-02	1.179E-01	5.937E-02	1.254E-02
.436	.650	2.061E-01	1.329E-02	3.714E-02	8.537E-02	4.800E-02	1.107E-02
.444	.675	1.417E-01	9.573E-03	1.603E-02	4.957E-02	3.603E-02	7.293E-03
.451	.700	9.157E-02	6.563E-03	4.818E-03	2.705E-02	2.469E-02	4.566E-03
.458	.725	5.568E-02	4.168E-03	1.067E-03	3.935E-02	1.504E-02	2.298E-03
.465	.750	3.247E-02	2.347E-03	1.959E-03	1.063E-01	7.907E-03	8.518E-04
.475	.800	1.251E-02	4.016E-04	7.233E-03	4.108E-01	1.975E-03	9.291E-04
.484	.850	7.251E-03	3.257E-04	7.211E-03	7.143E-01	3.583E-03	3.261E-03
.493	.900	2.882E-03	7.782E-04	2.427E-03	6.053E-01	5.432E-03	3.921E-03
.492	.950	5.578E-05	7.528E-04	9.188E-06	1.673E-01	3.718E-03	1.859E-03
.493	1.000	1.223E-03	6.193E-04	1.747E-03	1.053E-02	1.105E-03	6.100E-04
.491	1.050	2.139E-03	5.339E-04	2.738E-03	1.742E-01	1.072E-03	1.773E-03
.485	1.100	4.007E-04	3.096E-04	9.348E-04	1.355E-01	2.125E-03	2.075E-03
.479	1.150	6.713E-04	3.730E-04	8.322E-05	2.927E-02	1.395E-03	8.562E-04
.470	1.200	2.962E-03	3.691E-04	1.170E-03	1.774E-01	3.017E-04	1.386E-03
.457	1.250	1.631E-03	2.078E-04	9.385E-04	2.177E-01	7.210E-04	2.494E-03
.443	1.300	4.015E-04	6.913E-04	1.187E-05	4.246E-02	8.624E-04	1.300E-03
.406	1.400	2.915E-03	4.870E-05	5.722E-04	5.368E-02	3.522E-04	1.900E-03
.302	1.500	4.194E-03	2.433E-03	4.659E-05	7.018E-04	1.512E-04	4.046E-04
.156	1.800	1.597E-02	1.385E-02	6.880E-05	5.819E-03	2.851E-05	5.457E-03
.029	2.000	1.183E+01	1.828E+01	9.701E-05	5.742E-03	4.478E-05	2.836E-01

PHASE (MOTION-AVEVENT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	-95.8	89.6	.3	64.1	88.0	16.8
.218	.250	-97.0	89.4	.4	56.4	87.0	16.4
.254	.300	-98.1	89.5	.4	49.0	85.7	16.1
.288	.350	-99.4	89.9	.3	42.4	83.5	16.0
.319	.400	-100.7	88.7	.2	38.9	81.2	18.8
.347	.450	-102.0	86.2	.2	37.7	78.5	22.7
.373	.500	-103.7	82.0	.4	38.4	75.3	27.0
.397	.550	-105.9	75.5	.8	40.9	71.3	31.9
.417	.600	-109.1	66.3	1.9	46.3	66.1	37.6
.427	.625	-111.4	60.5	3.2	51.0	62.9	41.0
.435	.650	-114.3	54.0	5.4	58.8	59.2	44.9
.444	.675	-118.3	46.8	10.1	74.0	54.7	49.7
.451	.700	-123.7	39.0	22.2	108.3	48.9	56.3
.459	.725	-131.4	30.2	67.5	157.6	41.0	66.9
.465	.750	-142.3	19.9	130.8	-175.5	28.9	89.1
.475	.800	-175.1	-19.6	154.5	-156.0	-28.8	-169.8
.484	.850	153.1	-118.2	157.5	-147.7	-93.7	-139.7
.489	.900	137.0	-158.5	156.3	-142.6	-120.1	-123.5
.492	.950	153.1	187.6	38.8	-141.3	-141.9	-100.3
.493	1.000	-64.6	122.1	-19.5	75.6	176.4	-27.7
.491	1.050	-64.6	78.0	-21.6	60.3	93.4	33.3
.486	1.100	-69.7	24.3	-19.4	71.3	55.4	61.0
.479	1.150	128.6	-41.5	115.1	150.8	28.8	109.5
.470	1.200	128.6	-83.9	138.4	-150.4	-34.1	-172.3
.457	1.250	140.4	-159.0	136.4	-139.6	-118.8	-137.3
.443	1.300	-102.2	145.3	92.5	-130.2	-150.5	-100.9
.406	1.400	-36.6	-11.9	-47.2	44.6	58.6	37.9
.302	1.600	-95.6	134.3	-29.4	178.5	-171.7	-79.4
.156	1.800	162.0	169.3	92.3	-161.5	-116.8	-134.8
.029	2.000	133.1	-153.9	101.2	-138.5	9.2	-83.5

REC = 8 HEADING = 15. DEG RAO MOTION/NAVENT)**2 SHIP SPEED = 15. KNOTS

ME	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	1.166E+00	9.849E-02	9.567E-01	4.872E-04	2.953E-03	1.860E-04
.202	.200	1.317E+00	1.023E-01	9.266E-01	1.500E-03	7.681E-03	5.840E-04
.232	.300	1.464E+00	1.047E-01	8.631E-01	4.047E-03	1.585E-02	1.530E-03
.257	.300	1.587E+00	1.069E-01	7.724E-01	9.910E-03	2.769E-02	3.754E-03
.278	.400	1.659E+00	1.058E-01	6.566E-01	2.214E-02	4.235E-02	8.099E-03
.296	.400	1.649E+00	9.421E-02	5.143E-01	4.176E-02	5.641E-02	1.367E-02
.311	.500	1.532E+00	7.614E-02	3.602E-01	6.433E-02	6.557E-02	1.942E-02
.320	.550	1.294E+00	5.633E-02	2.155E-01	7.761E-02	6.581E-02	2.348E-02
.326	.600	9.764E-01	3.947E-02	1.419E-01	6.778E-02	5.568E-02	2.366E-02
.329	.625	7.988E-01	3.313E-02	6.117E-02	5.339E-02	4.743E-02	2.185E-02
.329	.650	6.238E-01	2.830E-02	3.199E-02	3.555E-02	3.799E-02	1.882E-02
.328	.675	4.618E-01	2.476E-02	1.849E-02	1.819E-02	2.829E-02	1.437E-02
.327	.700	3.221E-01	2.203E-02	3.909E-03	6.113E-03	1.923E-02	1.047E-02
.325	.725	2.111E-01	1.934E-02	8.493E-04	3.090E-03	1.167E-02	5.227E-03
.322	.750	1.320E-01	1.674E-02	1.676E-03	1.057E-02	6.132E-03	2.796E-03
.313	.800	5.816E-02	9.404E-03	5.776E-03	4.603E-02	1.413E-03	8.870E-05
.300	.850	4.475E-02	2.186E-03	5.243E-03	6.963E-02	2.167E-03	2.424E-03
.284	.900	2.845E-02	7.881E-04	1.455E-03	5.123E-02	3.219E-03	4.891E-03
.264	.950	2.867E-03	4.979E-03	6.712E-05	1.556E-02	2.179E-03	3.383E-03
.239	1.000	1.211E-02	5.845E-03	1.420E-03	3.780E-03	6.229E-04	8.119E-04
.211	1.050	5.577E-02	4.278E-04	1.755E-03	8.015E-03	4.061E-04	2.939E-03
.180	1.100	4.183E-02	1.260E-02	4.294E-04	5.693E-03	9.553E-04	8.243E-03
.144	1.150	1.513E-02	6.633E-02	1.071E-04	2.019E-04	8.764E-04	5.371E-03
.105	1.200	7.803E-01	7.881E-02	8.883E-04	8.738E-03	3.191E-04	5.117E-04
.062	1.250	6.439E+00	1.315E-01	6.506E-04	1.623E-02	2.262E-04	3.052E-02
.014	1.300	1.040E+02	2.447E+02	2.527E-04	7.492E-03	8.346E-04	3.142E-01
.091	1.400	1.221E+00	3.880E-02	3.932E-04	9.002E-03	7.911E-05	1.744E-02
.347	1.600	2.600E-03	1.623E-03	5.015E-05	5.945E-04	1.290E-04	3.894E-04
.565	1.800	1.467E-05	6.559E-05	1.288E-04	2.494E-02	2.870E-04	3.224E-05
1.043	2.000	1.567E-05	1.468E-05	2.443E-05	5.323E-04	3.396E-04	1.454E-05

PHASE (MOTION-WAVEVENT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	-95.6	89.3	.3	59.4	84.8	27.5
.202	.250	-96.7	89.0	.4	52.3	85.1	25.3
.232	.300	-97.7	88.3	.5	45.9	84.2	23.6
.257	.350	-98.7	87.6	.5	40.4	82.8	22.8
.278	.400	-99.9	86.2	.3	36.6	80.2	23.5
.296	.450	-101.1	83.1	.1	34.7	77.4	25.9
.310	.500	-102.5	77.7	-.1	34.3	74.1	29.1
.320	.550	-104.5	69.3	-.1	35.2	69.9	32.8
.326	.600	-107.3	56.6	.5	37.6	64.7	37.1
.328	.625	-109.3	48.6	1.4	39.9	61.5	39.4
.329	.650	-111.9	39.8	3.3	43.7	57.8	42.0
.328	.675	-115.5	30.7	7.6	51.3	53.4	44.8
.327	.700	-120.4	22.0	19.6	71.7	47.8	48.2
.325	.725	-127.5	14.3	66.7	135.2	40.2	52.3
.322	.750	-137.8	8.1	128.5	178.4	29.0	58.4
.313	.800	-171.2	1.1	149.6	-163.8	-24.4	162.1
.300	.850	-154.5	8.3	150.7	-160.7	-90.9	-128.1
.284	.900	137.3	115.4	145.5	-163.3	-116.9	-115.0
.264	.950	135.8	141.4	8.8	-178.2	-135.7	-100.1
.239	1.000	-60.1	139.6	-25.6	116.2	-169.4	-54.3
.211	1.050	-58.3	113.2	-32.6	57.6	107.2	28.8
.180	1.100	-59.0	-29.1	-40.9	39.2	68.6	49.0
.144	1.150	149.2	-36.4	149.0	-66.5	50.4	58.9
.105	1.200	141.3	-50.1	134.0	-138.1	21.3	-129.8
.062	1.250	147.9	178.6	115.6	-151.9	-53.2	-118.0
.014	1.300	172.4	137.4	19.2	178.1	-83.4	-131.2
.091	1.400	-28.5	-23.8	-60.3	43.1	124.5	47.5
.347	1.600	-95.2	139.5	-28.6	-150.7	-174.1	-70.6
.665	1.800	161.2	48.4	139.7	22.0	-140.5	-56.6
1.043	2.000	88.8	101.6	-83.3	55.0	-78.0	-79.4

REC = 9 HEADING = 15. DEG SHIP SPEED = 20. KNOTS

RAO (MOTION/WAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.153	.200	1.43E+00	1.22E-01	9.61E-01	5.39E-04	2.40E-03	1.09E-04
.187	.250	1.81E+00	1.35E-01	9.18E-01	1.66E-03	6.51E-03	4.10E-04
.209	.300	2.10E+00	1.46E-01	8.50E-01	4.40E-03	1.36E-02	1.21E-03
.226	.350	2.61E+00	1.53E-01	7.54E-01	1.01E-02	2.37E-02	2.97E-03
.238	.400	3.02E+00	1.55E-01	6.28E-01	2.03E-02	3.56E-02	6.12E-03
.245	.450	3.43E+00	1.46E-01	4.90E-01	3.44E-02	4.68E-02	1.10E-02
.246	.500	3.78E+00	1.31E-01	3.28E-01	4.88E-02	5.38E-02	1.77E-02
.243	.550	3.84E+00	1.12E-01	1.91E-01	5.60E-02	5.37E-02	2.49E-02
.235	.600	3.63E+00	9.47E-02	8.71E-02	4.90E-02	4.54E-02	3.04E-02
.229	.625	3.37E+00	8.95E-02	5.10E-02	4.00E-02	3.86E-02	3.14E-02
.222	.650	3.01E+00	8.77E-02	2.58E-02	2.87E-02	3.13E-02	3.08E-02
.213	.675	2.69E+00	8.95E-02	1.04E-02	1.71E-02	2.37E-02	2.82E-02
.203	.700	2.25E+00	9.38E-02	2.95E-03	7.38E-03	1.65E-02	2.39E-02
.192	.725	1.79E+00	9.98E-02	1.02E-03	1.40E-03	1.04E-02	1.83E-02
.180	.750	1.36E+00	1.05E-01	2.15E-03	1.81E-04	5.91E-03	1.23E-02
.151	.800	9.37E-01	9.48E-02	5.61E-03	1.00E-02	1.47E-03	3.28E-03
.117	.850	1.50E+00	4.47E-02	4.46E-03	2.33E-02	1.46E-03	4.93E-03
.079	.900	4.67E+00	1.25E-02	9.45E-04	2.40E-02	2.65E-03	1.38E-02
.035	.950	1.93E+01	3.90E+00	7.63E-04	1.36E-02	3.07E-03	1.96E-02
.014	1.000	5.67E+02	5.34E+02	3.41E-03	6.92E-03	2.50E-03	2.66E-01
.069	1.050	5.16E+00	3.77E-01	1.80E-03	7.11E-03	2.81E-04	5.64E-03
.127	1.100	1.92E-01	5.17E-02	3.24E-04	5.94E-03	7.87E-04	1.03E-02
.191	1.150	6.87E-03	2.52E-02	1.35E-04	5.42E-05	7.20E-04	2.18E-03
.260	1.200	2.51E-02	2.40E-03	9.27E-04	1.58E-02	1.04E-04	9.16E-04
.334	1.250	5.96E-03	8.77E-04	7.78E-04	5.61E-02	3.03E-04	2.87E-03
.414	1.300	5.10E-04	1.59E-03	8.60E-06	3.21E-02	5.34E-04	1.32E-03
.487	1.400	6.72E-04	2.53E-03	7.35E-04	4.50E-01	4.18E-04	3.37E-04
.596	1.600	4.15E-05	4.50E-05	9.17E-04	6.150E-04	6.00E-04	2.85E-05
1.296	1.800	6.44E-06	4.56E-06	3.11E-04	6.54E-06	1.27E-04	2.29E-06
2.057	2.000	4.33E-07	1.78E-07	8.22E-06	3.85E-06	1.74E-05	4.52E-07

PHASE (MOTION-WAVEHT)

WE	ME	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	-95.4	89.0	.3	54.9	80.3	47.7
.187	.250	-96.5	88.6	.4	48.2	81.9	39.1
.209	.300	-97.3	87.7	.4	42.2	82.0	34.6
.225	.350	-98.1	86.2	.3	37.5	81.0	32.7
.238	.400	-98.9	83.6	.2	33.9	79.4	32.5
.245	.450	-99.8	79.8	.0	31.2	77.1	33.1
.245	.500	-100.8	73.7	-.2	29.2	74.0	34.2
.243	.550	-102.2	64.2	-.3	27.7	70.1	35.6
.235	.600	-104.3	49.9	.4	26.3	65.4	37.0
.229	.625	-105.8	40.9	1.5	25.6	62.5	37.6
.222	.650	-107.8	31.0	4.0	24.7	59.3	38.0
.213	.675	-110.5	20.9	9.9	23.5	55.5	38.1
.203	.700	-114.3	11.2	26.9	21.5	50.9	37.4
.192	.725	-119.8	2.1	80.2	15.9	44.8	35.7
.180	.750	-128.3	-6.1	125.7	-134.7	35.8	32.0
.151	.800	-158.5	-21.1	142.8	-156.3	-3.5	1.1
.117	.850	162.2	-40.2	141.0	-162.0	-66.8	-74.9
.079	.900	139.9	-178.7	123.6	-170.9	-91.7	-97.3
.035	.950	122.8	119.2	-0.3	168.0	-97.7	-130.8
.014	1.000	-35.3	107.4	-39.6	122.2	-114.4	-166.8
.068	1.050	-53.6	89.0	-43.6	61.6	158.4	100.1
.127	1.100	-59.4	-25.1	-47.4	36.8	81.1	56.4
.191	1.150	137.1	-34.7	135.1	-57.5	52.5	69.8
.260	1.200	131.3	-23.9	131.9	-149.3	1.8	-175.1
.334	1.250	141.9	127.6	131.2	-146.8	-118.3	-134.1
.414	1.300	-104.7	151.0	121.5	-131.2	-146.7	-96.6
.587	1.400	-38.9	167.7	-22.7	172.1	63.2	146.3
.996	1.500	-86.5	142.2	-77.3	175.1	-138.6	-22.5
1.446	1.600	174.9	130.4	21.8	27.6	-34.8	-40.9
2.057	2.000	-130.6	68.1	79.5	35.6	-53.2	-41.5

REC = 10

HEADING = 15. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVENT)*2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.143	.200	1.917E+00	1.586E-01	9.574E-01	6.014E-04	1.920E-03	7.682E-05
.171	.250	2.557E+00	1.922E-01	9.142E-01	1.866E-03	5.467E-03	2.691E-04
.186	.300	3.468E+00	2.292E-01	8.429E-01	4.915E-03	1.154E-02	8.177E-04
.195	.350	4.722E+00	2.708E-01	7.412E-01	1.112E-02	2.613E-02	2.112E-03
.197	.400	6.472E+00	3.191E-01	6.131E-01	2.154E-02	3.823E-02	4.770E-03
.193	.450	8.936E+00	3.727E-01	4.658E-01	3.612E-02	3.970E-02	9.548E-03
.183	.500	1.243E+01	4.417E-01	3.146E-01	5.109E-02	4.562E-02	1.690E-02
.165	.550	1.789E+01	5.466E-01	1.791E-01	5.979E-02	4.556E-02	2.588E-02
.144	.600	2.718E+01	7.832E-01	7.815E-02	5.563E-02	3.920E-02	3.300E-02
.130	.625	3.490E+01	9.698E-01	4.459E-02	4.901E-02	3.413E-02	3.573E-02
.114	.650	4.729E+01	1.328E+00	2.169E-02	3.924E-02	2.856E-02	3.570E-02
.097	.675	7.002E+01	2.011E+00	8.591E-03	2.773E-02	2.318E-02	3.250E-02
.079	.700	1.178E+02	3.674E+00	3.225E-03	1.733E-02	1.739E-02	3.136E-02
.059	.725	2.658E+02	9.014E+00	3.795E-03	8.469E-03	1.314E-02	3.269E-02
.037	.750	1.086E+03	4.294E+01	6.759E-03	3.196E-03	9.865E-03	6.038E-02
.012	.800	3.071E+04	1.444E+03	1.089E-02	3.944E-03	6.824E-03	3.227E-01
.066	.850	1.441E+01	7.103E-01	4.265E-03	1.927E-02	1.473E-03	5.213E-03
.127	.900	7.117E-01	8.193E-03	6.525E-04	2.750E-02	2.213E-03	6.897E-03
.194	.950	1.342E-02	1.901E-02	1.973E-04	1.431E-02	1.650E-03	3.272E-03
.269	1.000	9.549E-03	4.270E-03	1.614E-03	2.438E-03	3.721E-04	7.785E-04
.349	1.050	7.903E-03	1.361E-04	2.214E-03	2.686E-02	4.195E-04	2.055E-03
.434	1.100	5.543E-04	1.354E-03	9.504E-04	6.358E-02	1.259E-03	1.900E-03
.527	1.150	4.811E-04	5.225E-05	2.606E-04	1.234E-01	8.954E-04	6.370E-04
.626	1.200	9.895E-04	2.093E-03	1.181E-03	2.347E-01	1.760E-04	1.219E-05
.731	1.250	2.207E-04	3.411E-04	1.567E-03	5.010E-02	8.673E-04	4.045E-05
.843	1.300	3.539E-05	1.003E-04	1.125E-03	2.115E-03	1.287E-03	7.220E-05
1.085	1.400	6.349E-05	2.349E-05	1.345E-03	1.598E-03	1.154E-03	3.097E-05
1.645	1.600	1.506E-05	4.822E-06	1.053E-03	1.533E-05	2.864E-04	2.550E-06
2.309	1.800	9.488E-07	1.471E-07	1.806E-08	1.071E-05	6.608E-06	8.543E-08
3.073	2.000	4.722E-07	2.627E-07	9.404E-06	3.846E-05	1.694E-05	1.776E-07

PHASE (MOTION-HAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	-95.1	88.7	.3	51.6	73.8	86.5
.171	.250	-96.2	88.2	.2	44.9	76.8	64.2
.185	.300	-96.9	87.3	.2	39.3	78.4	56.0
.195	.350	-97.5	85.8	.0	34.9	78.4	51.9
.197	.400	-98.0	83.4	.2	31.4	77.3	50.0
.193	.450	-98.6	79.8	.5	28.6	75.3	49.8
.183	.500	-99.2	74.6	.9	26.2	72.7	51.0
.165	.550	-100.0	67.7	.8	23.9	69.8	53.7
.144	.600	-101.0	59.7	.9	21.0	67.0	58.0
.137	.625	-102.0	55.4	3.0	19.2	65.0	60.9
.114	.650	-103.1	51.8	8.1	16.8	63.3	65.0
.097	.675	-104.6	49.3	20.9	12.8	62.1	71.0
.073	.700	-107.4	46.6	50.4	7.7	58.9	80.9
.059	.725	-110.9	45.0	94.6	-3.2	56.3	95.9
.037	.750	-116.4	42.0	114.2	-27.4	52.8	113.9
.012	.800	-137.8	13.1	114.5	-126.3	31.8	97.1
.006	.850	-168.0	-43.8	127.5	-158.6	-38.5	-32.5
.127	.900	133.3	158.5	129.6	-169.2	-91.0	-131.1
.194	.950	133.9	143.5	-24.4	178.1	-117.3	-103.6
.263	1.000	-61.6	152.7	-30.3	109.5	-158.9	-37.6
.343	1.050	-62.1	-74.7	-25.4	49.6	92.4	29.5
.434	1.100	-66.2	-18.2	-7.4	65.5	60.1	62.9
.527	1.150	128.1	-52.1	85.7	177.6	38.7	133.8
.626	1.200	128.4	-18.0	143.8	-10.9	-28.3	20.1
.721	1.250	138.6	35.6	-178.7	25.4	-108.8	-103.0
.843	1.300	-84.7	112.3	-115.4	71.1	-127.5	-57.7
1.005	1.400	-45.8	-109.9	97.7	-125.4	103.6	58.2
1.645	1.500	-75.4	140.6	57.0	-142.2	-97.2	6.2
2.309	1.600	-169.3	152.8	146.3	14.8	-41.2	-93.9
3.073	2.000	-109.0	166.1	90.0	4.5	-70.0	-127.5

REC = 11

HEADING = 30. DEG . SHIP SPEED = 5. KNOTS
RAO (MOTION/AVEVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.191	.200	6.007E-01	2.665E-01	9.848E-01	1.523E-03	3.329E-03	8.215E-04
.236	.250	5.969E-01	2.628E-01	9.503E-01	5.052E-03	8.240E-03	2.069E-03
.280	.300	5.816E-01	2.931E-01	9.321E-01	1.533E-02	1.710E-02	5.881E-03
.322	.350	5.512E-01	3.004E-01	8.645E-01	4.579E-02	3.069E-02	1.175E-02
.364	.400	5.033E-01	2.704E-01	7.751E-01	1.267E-01	4.858E-02	1.895E-02
.404	.450	4.375E-01	2.262E-01	6.525E-01	3.229E-01	6.865E-02	2.696E-02
.443	.500	3.568E-01	1.808E-01	5.036E-01	7.690E-01	8.669E-02	3.480E-02
.481	.550	2.679E-01	1.447E-01	3.447E-01	1.750E+00	9.711E-02	4.102E-02
.518	.600	1.808E-01	1.220E-01	1.931E-01	3.765E+00	9.493E-02	4.192E-02
.536	.655	1.414E-01	1.061E-01	1.383E-01	4.920E+00	8.845E-02	3.593E-02
.554	.680	1.064E-01	7.102E-02	8.845E-02	4.801E+00	7.871E-02	2.252E-02
.571	.675	7.664E-02	2.868E-02	5.061E-02	2.842E+00	6.645E-02	9.786E-03
.589	.700	5.250E-02	7.273E-03	2.458E-02	1.103E+00	5.274E-02	4.975E-03
.606	.725	3.413E-02	3.077E-03	9.232E-03	3.472E-01	3.903E-02	3.979E-03
.622	.750	2.096E-02	5.143E-03	2.561E-03	2.084E-01	2.659E-02	3.375E-03
.639	.800	7.059E-03	1.035E-02	4.362E-03	4.823E-01	8.338E-03	1.491E-03
.655	.850	2.785E-03	1.046E-02	1.111E-02	6.450E-01	2.809E-03	2.225E-04
.683	.900	1.497E-03	6.505E-03	1.079E-02	4.965E-01	6.729E-03	2.194E-04
.716	.950	5.189E-04	2.429E-03	4.319E-03	2.119E-01	1.057E-02	6.623E-04
.745	.973	1.268E-05	6.363E-04	2.596E-04	2.719E-02	7.930E-03	7.676E-04
.800	1.000	1.773E-04	4.634E-04	2.451E-03	6.052E-03	2.528E-03	5.763E-04
.825	1.100	3.255E-04	3.678E-04	4.565E-03	3.434E-02	2.021E-03	4.549E-04
.850	1.150	1.169E-04	2.080E-04	3.109E-03	2.162E-02	5.402E-03	4.279E-04
.873	1.200	3.126E-05	4.732E-04	1.297E-03	8.723E-03	4.907E-03	3.322E-04
.895	1.250	2.058E-04	7.690E-04	2.049E-03	3.392E-02	1.220E-03	2.148E-04
.915	1.300	1.828E-04	6.225E-04	2.829E-03	4.204E-02	1.723E-03	1.896E-04
.935	1.400	7.641E-05	3.484E-04	1.101E-03	3.711E-03	1.743E-03	2.293E-04
1.018	1.500	6.572E-05	1.762E-04	5.365E-04	1.086E-02	6.425E-04	1.100E-04
1.064	1.800	1.257E-06	1.185E-04	5.729E-04	6.651E-04	1.072E-03	4.992E-05
1.091	2.000	5.460E-06	5.872E-05	2.732E-05	1.543E-03	4.544E-04	3.940E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
191	200	-96.2	90.0	.2	70.6	90.6	10.0
236	250	-97.6	89.9	.2	53.0	88.9	10.8
281	300	-99.0	91.5	.1	54.2	85.9	8.1
322	350	-100.3	91.7	-0.0	48.2	85.0	10.6
364	400	-101.6	90.8	.0	45.6	83.1	15.0
404	450	-103.0	89.8	.2	46.2	80.9	20.3
443	500	-104.6	85.7	.6	50.2	78.4	26.4
481	550	-106.7	81.9	1.4	59.5	75.3	34.5
518	600	-109.5	81.7	2.7	80.2	71.6	48.1
555	625	-111.3	86.9	3.8	99.6	69.3	59.0
584	650	-113.6	97.0	5.3	127.2	66.7	71.0
521	675	-116.5	104.5	7.6	159.8	63.7	73.6
589	700	-120.4	94.0	11.7	-169.6	60.0	60.5
605	725	-123.3	48.8	20.5	-133.4	55.5	47.4
622	750	-131.9	15.6	46.8	-74.8	49.6	42.0
635	800	-153.1	.7	147.5	-18.4	27.8	39.7
666	850	173.5	1.0	164.7	-7	-36.9	18.9
716	900	143.2	8.0	172.2	8.8	-91.0	-69.3
745	950	123.6	25.2	-177.9	15.3	-111.9	-76.1
773	1000	81.0	69.2	-119.7	19.0	-128.9	-60.3
800	1050	-58.6	133.2	-16.5	-142.1	-162.0	-29.7
825	1100	-68.9	178.4	1.7	-138.2	114.3	13.8
850	1150	-83.9	-114.1	24.9	-118.6	77.1	57.4
873	1200	163.9	-49.0	81.0	-40.6	57.7	99.8
895	1250	129.3	-13.6	144.9	12.4	18.5	152.3
916	1300	124.6	23.2	-178.0	30.6	-78.4	-145.3
955	1400	-62.4	129.6	-51.7	174.7	-136.5	-33.8
1018	1500	115.8	16.7	175.4	30.0	-53.3	-149.3
1054	1600	60.6	-51.6	125.1	-39.4	68.1	137.2
1091	2000	-57.7	-85.4	-92.3	-122.6	110.0	92.2

REC = 12 HEADING = 30. DEG SHIP SPEED = 10. KNOTS

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	7.261E-01	3.021E-01	9.779E-01	1.650E-03	2.779E-03	7.509E-04
.222	.220	7.600E-01	3.050E-01	9.491E-01	5.043E-03	7.119E-03	2.070E-03
.259	.300	7.811E-01	3.203E-01	9.013E-01	1.408E-02	1.482E-02	5.524E-03
.294	.330	7.829E-01	3.426E-01	8.383E-01	3.851E-02	2.678E-02	1.319E-02
.327	.400	7.572E-01	3.242E-01	7.448E-01	9.672E-02	4.220E-02	2.324E-02
.353	.450	6.985E-01	2.810E-01	5.213E-01	2.133E-01	5.892E-02	3.491E-02
.386	.500	6.054E-01	2.256E-01	4.759E-01	4.099E-01	7.320E-02	4.628E-02
.412	.550	4.840E-01	1.684E-01	3.246E-01	6.612E-01	8.048E-02	5.421E-02
.436	.600	3.486E-01	1.167E-01	1.880E-01	8.826E-01	7.717E-02	5.496E-02
.447	.635	2.817E-01	9.404E-02	1.313E-01	8.846E-01	7.124E-02	5.173E-02
.453	.650	2.191E-01	7.369E-02	8.473E-02	8.212E-01	6.283E-02	4.598E-02
.463	.675	1.631E-01	5.546E-02	4.915E-02	6.689E-01	5.261E-02	3.803E-02
.477	.700	1.156E-01	3.922E-02	2.435E-02	4.515E-01	4.145E-02	2.856E-02
.486	.725	7.763E-02	2.510E-02	9.283E-03	2.508E-01	3.033E-02	1.866E-02
.494	.750	4.935E-02	1.367E-02	2.175E-03	2.095E-01	2.024E-02	9.751E-03
.509	.800	1.810E-02	2.636E-03	2.460E-03	1.337E+00	6.411E-03	6.679E-04
.521	.850	8.362E-03	9.828E-03	7.277E-03	4.584E+00	2.207E-03	7.329E-03
.532	.900	5.369E-03	2.164E-02	6.768E-03	7.623E+00	4.021E-03	2.059E-02
.543	.950	2.213E-03	1.709E-02	2.303E-03	6.412E+00	5.587E-03	2.289E-02
.545	1.000	8.817E-05	3.068E-03	1.278E-06	1.949E+00	3.898E-03	1.132E-02
.549	1.050	5.791E-04	2.371E-03	1.517E-03	4.152E-02	1.304E-03	1.288E-03
.550	1.100	1.299E-03	9.376E-03	2.819E-03	1.715E+00	1.014E-03	2.558E-03
.549	1.150	4.137E-04	5.218E-03	1.411E-03	2.011E+00	2.137E-03	6.030E-03
.545	1.200	1.541E-04	3.536E-04	4.407E-05	4.080E-01	1.811E-03	2.516E-03
.539	1.250	1.510E-03	9.027E-03	7.717E-04	1.617E+00	5.203E-04	2.170E-03
.531	1.300	1.486E-03	1.177E-02	1.138E-03	3.556E+00	5.417E-04	1.018E-02
.509	1.400	9.040E-04	1.120E-03	1.937E-04	2.379E-02	5.065E-04	1.909E-03
.436	1.600	1.502E-03	6.719E-04	4.095E-04	2.277E-01	1.139E-04	3.952E-03
.326	1.800	4.687E-04	5.023E-03	1.849E-05	1.582E-02	1.115E-04	2.191E-03
.181	2.000	6.551E-03	1.705E-02	5.374E-05	1.073E-02	4.049E-06	9.905E-03

REC = 12 HEADING = 30. DEG SHIP SPEED = 10. KNOTS YAW

RAO (MOTION/HAVENT)**2 ROLL PITCH YAW

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	7.261E-01	3.021E-01	9.770E-01	1.650E-03	2.779E-03	7.509E-04
.222	.250	7.600E-01	3.055E-01	9.481E-01	5.043E-03	7.119E-03	2.070E-03
.259	.300	7.811E-01	3.203E-01	9.013E-01	1.408E-02	1.482E-02	5.524E-03
.294	.350	7.829E-01	3.426E-01	8.383E-01	3.857E-02	2.678E-02	1.319E-02
.327	.400	7.572E-01	3.242E-01	7.449E-01	9.672E-02	4.220E-02	2.324E-02
.353	.450	6.895E-01	2.810E-01	6.213E-01	2.138E-01	5.892E-02	3.491E-02
.386	.500	6.554E-01	2.256E-01	4.759E-01	4.090E-01	7.320E-02	4.628E-02
.412	.550	4.840E-01	1.684E-01	3.246E-01	6.612E-01	8.048E-02	5.421E-02
.436	.600	3.866E-01	1.167E-01	1.880E-01	8.926E-01	7.717E-02	5.496E-02
.447	.625	2.179E-01	9.404E-02	1.313E-01	8.846E-01	7.124E-02	5.173E-02
.458	.650	2.191E-01	7.309E-02	8.473E-02	8.218E-01	6.283E-02	4.598E-02
.468	.675	1.531E-01	5.545E-02	4.915E-02	6.680E-01	5.261E-02	3.803E-02
.477	.700	1.156E-01	3.923E-02	2.435E-02	4.510E-01	4.145E-02	2.856E-02
.486	.725	7.763E-02	2.510E-02	9.283E-03	2.508E-01	3.033E-02	1.866E-02
.494	.750	4.335E-02	1.367E-02	2.175E-03	2.095E-01	2.024E-02	9.751E-03
.503	.800	1.102E-02	2.635E-03	2.460E-03	1.337E-00	6.411E-03	6.679E-04
.521	.850	8.352E-03	9.628E-03	7.277E-03	4.584E-00	2.207E-03	7.329E-03
.532	.900	5.359E-03	2.164E-02	6.769E-03	7.623E-00	4.021E-03	2.059E-02
.543	.950	2.213E-03	1.709E-02	2.303E-03	6.413E-00	5.587E-03	2.289E-02
.545	1.000	8.317E-05	3.068E-03	1.278E-06	1.943E+00	3.898E-03	1.132E-02
.549	1.050	5.790E-04	2.371E-03	1.517E-03	4.150E-02	1.304E-03	1.288E-03
.550	1.100	1.099E-03	9.376E-03	2.819E-03	1.715E+00	1.014E-03	2.558E-03
.549	1.150	4.137E-04	5.218E-03	1.411E-03	2.011E+00	2.137E-03	6.030E-03
.545	1.200	1.541E-04	3.536E-04	4.407E-05	4.080E-01	1.811E-03	2.516E-03
.539	1.250	1.510E-03	9.027E-03	7.717E-04	1.617E+00	5.203E-04	2.170E-03
.531	1.300	1.886E-03	1.177E-02	1.198E-03	3.559E+00	5.417E-04	1.018E-02
.509	1.400	9.400E-04	1.120E-03	1.937E-04	2.379E-02	5.055E-04	1.989E-03
.436	1.600	1.502E-03	6.719E-04	4.095E-04	2.277E-01	1.139E-04	3.952E-03
.326	1.800	4.887E-04	5.023E-03	1.849E-05	1.686E-02	1.111E-04	2.131E-03
.181	2.000	6.551E-03	1.705E-02	5.374E-05	1.879E-02	4.049E-06	9.905E-03

PHASE (MOTION-WAVEHT)

HE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	-96.1	89.7	.3	66.8	88.0	16.5
.222	.200	-97.4	89.5	.3	59.7	87.1	16.1
.253	.300	-98.6	90.0	.4	52.5	85.7	14.6
.294	.300	-99.9	90.4	.2	45.1	83.8	14.4
.327	.400	-101.1	89.4	.1	42.7	81.8	17.3
.359	.400	-102.4	87.3	.1	41.7	79.5	21.1
.385	.500	-104.0	84.0	.1	42.7	75.6	25.3
.412	.500	-105.9	79.1	.3	45.6	73.2	30.1
.435	.500	-108.6	72.4	.7	50.9	68.8	35.5
.447	.600	-110.4	63.5	1.2	54.8	66.2	38.5
.453	.600	-112.6	64.2	2.0	60.1	63.2	41.9
.463	.600	-115.4	59.5	3.3	67.8	59.7	45.7
.477	.700	-119.0	54.4	5.9	80.5	55.6	50.2
.485	.725	-123.9	48.4	11.8	105.5	50.5	55.9
.494	.750	-131.7	39.7	29.8	154.0	43.8	63.9
.509	.800	-152.8	-17.0	144.1	-153.7	20.4	133.8
.521	.850	173.2	-83.1	158.5	-121.7	-40.2	-129.2
.532	.900	145.2	-91.4	160.7	-106.5	-95.2	-111.0
.540	.900	130.3	-91.5	160.2	-94.2	-120.3	-97.6
.545	1.000	126.4	-101.6	90.8	-86.3	-141.7	-83.6
.549	1.050	-64.3	134.1	-18.6	147.7	-179.6	-47.1
.550	1.100	-65.9	121.6	-19.6	119.2	101.8	69.9
.549	1.150	-69.0	123.4	-17.7	125.6	60.0	89.7
.545	1.200	124.5	-116.6	33.5	167.2	34.5	112.3
.539	1.200	120.9	-83.8	138.7	-105.4	-9.1	-143.8
.531	1.300	125.8	-91.2	140.6	-96.7	-101.5	-116.5
.509	1.400	-73.4	128.3	-34.2	-43.7	-175.0	-57.9
.435	1.600	114.8	-89.2	125.4	-139.2	-95.2	-157.1
.326	1.800	50.3	-37.0	-139.0	29.1	6.5	68.7
.181	2.000	-41.1	21.2	-82.8	43.1	57.8	59.1

REC = 13 HEADING = 30. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/HAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	8.861E-01	3.515E-01	9.715E-01	1.750E-03	2.275E-03	5.554E-04
.207	.250	9.833E-01	3.642E-01	9.380E-01	5.306E-03	6.051E-03	1.727E-03
.239	.300	1.076E+00	3.703E-01	8.939E-01	1.422E-02	1.269E-02	4.373E-03
.266	.350	1.152E+00	3.964E-01	8.119E-01	3.561E-02	2.296E-02	1.208E-02
.291	.400	1.198E+00	3.959E-01	7.141E-01	8.202E-02	3.621E-02	2.510E-02
.312	.450	1.194E+00	3.609E-01	5.889E-01	1.642E-01	5.020E-02	4.201E-02
.330	.500	1.125E+00	3.027E-01	4.455E-01	2.776E-01	6.161E-02	6.055E-02
.344	.550	9.843E-01	2.341E-01	2.994E-01	3.851E-01	6.670E-02	7.059E-02
.354	.600	7.821E-01	1.687E-01	1.707E-01	4.178E-01	6.282E-02	8.333E-02
.359	.625	6.661E-01	1.399E-01	1.181E-01	3.863E-01	5.742E-02	8.157E-02
.362	.650	5.472E-01	1.157E-01	7.555E-02	3.218E-01	5.013E-02	7.588E-02
.364	.675	4.312E-01	9.604E-02	4.327E-02	2.333E-01	4.154E-02	6.647E-02
.366	.700	3.240E-01	8.451E-02	2.109E-02	1.382E-01	3.238E-02	5.410E-02
.367	.725	2.309E-01	6.429E-02	7.821E-03	5.980E-02	2.345E-02	4.004E-02
.366	.750	1.555E-01	5.820E-02	1.711E-03	2.117E-02	1.552E-02	2.602E-02
.364	.800	6.302E-02	3.962E-02	2.113E-03	1.090E-01	4.790E-03	5.288E-03
.357	.850	3.264E-02	1.949E-02	6.017E-03	3.365E-01	1.460E-03	1.408E-03
.348	.900	2.677E-02	3.603E-03	5.228E-03	4.546E-01	2.435E-03	1.044E-02
.335	.950	1.573E-02	2.215E-03	1.541E-03	3.222E-01	3.276E-03	1.726E-02
.318	1.000	1.744E-03	1.220E-02	4.235E-05	9.761E-02	2.167E-03	1.236E-02
.293	1.050	3.817E-03	1.365E-02	1.337E-03	1.104E-02	6.296E-04	4.910E-03
.275	1.100	1.777E-02	1.833E-03	1.959E-03	4.379E-02	3.660E-04	8.770E-03
.243	1.150	1.432E-02	7.610E-03	7.299E-04	3.861E-02	8.573E-04	1.605E-02
.218	1.200	1.522E-04	5.224E-02	4.777E-06	3.097E-03	8.114E-04	1.317E-02
.184	1.250	5.693E-02	6.716E-02	5.895E-04	2.183E-02	2.801E-04	1.171E-03
.147	1.300	2.136E-01	3.094E-03	7.369E-04	6.776E-02	8.301E-05	2.410E-02
.063	1.400	7.761E-01	5.490E+00	2.536E-04	1.222E-02	3.801E-04	7.419E-02
.146	1.600	1.062E-01	1.826E-02	2.892E-04	3.036E-02	1.586E-05	1.185E-02
.410	1.800	2.030E-04	2.688E-03	2.355E-05	3.560E-02	1.311E-04	1.542E-03
.728	2.000	1.325E-05	1.287E-04	1.167E-04	3.163E-02	1.594E-04	7.167E-05

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-95.9	89.4	.3	62.1	84.2	26.6
.207	.250	-97.1	88.1	.4	55.5	84.7	24.3
.239	.300	-98.2	88.6	.4	49.3	84.2	23.0
.265	.350	-99.3	88.5	.3	43.4	82.5	20.7
.291	.400	-100.5	87.5	.1	39.5	80.4	21.5
.312	.450	-101.7	85.1	-.1	37.6	78.0	24.0
.330	.500	-103.1	81.0	-.4	37.1	75.0	27.1
.344	.550	-104.8	74.9	-.6	37.9	71.4	30.6
.354	.600	-107.2	65.8	-.8	39.8	66.8	34.6
.359	.625	-108.8	59.9	-.7	41.3	64.1	36.8
.362	.650	-110.8	53.1	-.4	43.6	61.1	39.1
.364	.675	-113.3	45.4	.5	47.0	57.5	41.7
.365	.700	-116.6	37.0	2.5	53.2	53.4	44.6
.367	.725	-121.1	28.5	7.5	66.8	48.3	48.0
.366	.750	-127.3	20.3	24.9	107.6	41.8	52.4
.364	.800	-148.7	6.9	141.1	-171.4	19.3	69.9
.357	.850	175.1	-.3	152.4	-159.1	-39.3	-171.3
.348	.900	146.4	8.5	151.8	-156.0	-96.2	-132.4
.335	.950	131.6	123.4	146.1	-157.0	-121.0	-116.9
.318	1.000	127.3	143.0	23.0	-166.0	-140.3	-95.7
.298	1.050	-61.8	145.6	-25.5	122.5	-173.3	-47.8
.275	1.100	-60.6	141.9	-32.2	57.8	105.2	20.2
.248	1.150	-58.1	-27.4	-38.0	42.9	65.3	44.4
.218	1.200	101.4	-34.9	178.3	15.8	46.3	59.7
.184	1.250	126.3	-40.3	136.1	-134.7	23.7	126.5
.147	1.300	134.5	-112.1	125.6	-147.4	-53.6	-136.1
.063	1.400	-64.4	128.6	-24.5	138.4	-117.1	-143.4
.146	1.600	123.3	-103.0	120.1	-135.6	5.2	-133.7
.410	1.800	55.9	-29.8	-122.9	46.9	2.8	76.8
.728	2.000	-60.1	-116.1	-39.2	-149.0	56.9	98.1

REC = 14

HEADING = 30. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	1.093E+00	4.237E-01	9.563E-01	1.914E-03	1.827E-03	3.362E-04
.193	.250	1.296E+00	4.586E-01	9.295E-01	5.813E-03	5.061E-03	1.189E-03
.218	.300	1.527E+00	4.919E-01	8.732E-01	1.533E-02	1.088E-02	3.568E-03
.233	.350	1.774E+00	5.091E-01	7.895E-01	3.576E-02	1.937E-02	8.427E-03
.255	.400	2.019E+00	5.212E-01	6.829E-01	7.518E-02	3.025E-02	1.945E-02
.265	.450	2.232E+00	5.091E-01	5.553E-01	1.397E-01	4.183E-02	3.884E-02
.273	.500	2.366E+00	4.614E-01	4.125E-01	2.188E-01	5.091E-02	6.361E-02
.275	.550	2.373E+00	3.912E-01	2.710E-01	2.814E-01	5.447E-02	8.996E-02
.273	.600	2.210E+00	3.180E-01	1.495E-01	2.862E-01	5.064E-02	1.032E-01
.270	.625	2.059E+00	2.867E-01	1.013E-01	2.591E-01	4.600E-02	1.133E-01
.266	.650	1.865E+00	2.615E-01	6.294E-02	2.144E-01	3.996E-02	1.122E-01
.261	.675	1.634E+00	2.428E-01	3.475E-02	1.584E-01	3.301E-02	1.057E-01
.255	.700	1.378E+00	2.296E-01	1.606E-02	1.003E-01	2.575E-02	9.407E-02
.247	.725	1.110E+00	2.192E-01	5.483E-03	4.991E-02	1.879E-02	7.859E-02
.233	.750	8.531E-01	2.214E-01	1.133E-03	1.482E-02	1.270E-02	6.237E-02
.213	.800	4.461E-01	2.161E-01	2.333E-03	7.808E-03	4.292E-03	2.599E-02
.193	.850	2.928E-01	1.545E-01	5.305E-03	6.881E-02	1.241E-03	4.235E-03
.164	.900	4.358E-01	4.037E-02	4.028E-03	1.263E-01	1.497E-03	1.402E-02
.123	.950	7.071E-01	4.040E-02	9.154E-04	1.103E-01	2.258E-03	4.387E-02
.091	1.000	5.661E-01	9.185E-01	2.285E-04	6.238E-02	2.158E-03	5.059E-02
.043	1.050	2.446E+00	1.768E+01	1.903E-03	2.770E-02	1.502E-03	8.228E-02
.012	1.100	4.113E+03	4.382E+03	2.485E-03	2.746E-02	1.663E-03	1.732E+00
.052	1.150	1.075E+01	2.511E+00	5.455E-04	2.796E-02	6.354E-04	6.957E-02
.103	1.200	9.383E-03	7.518E-01	5.373E-05	4.804E-03	8.235E-04	3.740E-02
.170	1.250	7.507E-02	9.409E-02	7.065E-04	2.120E-02	2.565E-04	5.803E-04
.237	1.300	3.255E-02	2.079E-06	8.047E-04	9.604E-02	6.085E-05	8.870E-03
.382	1.400	2.369E-03	6.216E-03	2.011E-04	1.754E-03	1.945E-04	2.841E-03
.727	1.600	2.095E-04	7.102E-04	5.421E-04	9.365E-02	2.000E-04	8.806E-05
1.146	1.800	1.654E-06	7.222E-05	1.284E-03	3.628E-04	5.815E-04	3.585E-05
1.633	2.000	8.638E-07	1.358E-05	9.314E-05	3.864E-05	1.772E-04	5.030E-06

PHASE (MOTION-HAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	-95.7	89.1	.3	57.6	78.6	44.7
.193	.250	-96.9	88.7	.4	51.2	81.2	38.0
.218	.300	-97.8	88.1	.5	45.4	81.4	32.7
.239	.350	-98.7	86.9	.3	40.6	80.9	31.1
.255	.400	-99.6	85.2	.1	36.7	79.3	29.9
.266	.450	-100.6	82.4	-.3	34.0	76.8	30.2
.273	.500	-101.7	77.5	-.7	32.4	73.9	31.9
.275	.550	-103.1	70.0	-1.2	31.5	70.4	34.1
.273	.600	-104.9	59.0	-1.5	30.8	66.2	36.4
.271	.625	-106.1	51.9	-1.5	30.4	63.7	37.4
.266	.650	-107.6	43.8	-1.1	30.0	61.0	38.2
.261	.675	-109.5	35.1	.0	29.3	57.9	38.6
.255	.700	-112.1	25.9	2.6	28.3	54.3	38.5
.247	.725	-115.5	15.7	9.6	26.3	49.9	37.4
.233	.750	-120.6	7.6	34.6	25.6	44.2	37.0
.218	.800	-139.9	-7.6	138.1	-156.5	25.6	31.7
.193	.850	-175.0	-20.4	146.9	-158.8	-20.4	-9.6
.164	.900	149.8	-36.8	144.2	-163.1	-76.8	-93.8
.129	.950	131.9	162.0	131.5	-170.9	-99.7	-107.8
.091	1.000	118.3	135.7	-.9	171.6	-110.6	-120.4
.048	1.050	-30.5	110.4	-33.6	120.2	-123.8	-164.1
.012	1.100	-49.9	99.3	-54.4	77.2	-158.4	-177.5
.052	1.150	-58.1	30.6	-62.2	38.2	109.1	84.3
.103	1.200	-87.9	-36.7	164.7	-.9	68.9	54.4
.170	1.250	127.4	-41.0	132.5	-139.4	39.9	120.1
.237	1.300	130.2	96.1	125.8	-148.4	-83.5	-143.0
.382	1.400	-74.9	148.9	-33.5	-110.7	-170.3	-60.4
.722	1.600	112.7	8.3	155.1	12.9	-89.7	-145.4
1.146	1.800	58.5	-42.8	138.0	-26.7	71.7	146.0
1.633	2.000	137.1	-45.7	-54.8	-137.7	121.6	124.2

RED = 15 HEADING = 30. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	1.366E+00	5.302E-01	9.634E-01	2.113E-03	1.461E-03	2.200E-04
.179	.253	1.749E+00	6.194E-01	9.260E-01	6.455E-03	4.246E-03	7.939E-04
.198	.300	2.246E+00	7.090E-01	8.639E-01	1.690E-02	9.110E-03	2.347E-03
.211	.350	2.690E+00	8.075E-01	7.793E-01	3.879E-02	1.648E-02	6.346E-03
.213	.400	3.710E+00	9.000E-01	6.675E-01	7.770E-02	2.555E-02	1.477E-02
.223	.450	4.736E+00	9.822E-01	5.339E-01	1.350E-01	5.479E-02	2.851E-02
.226	.500	5.995E+00	1.052E+00	3.897E-01	2.017E-01	4.193E-02	5.029E-02
.206	.550	7.514E+00	1.116E+00	2.505E-01	2.548E-01	4.459E-02	7.879E-02
.191	.600	9.343E+00	1.206E+00	1.343E-01	2.671E-01	4.157E-02	1.099E-01
.181	.625	1.042E+01	1.282E+00	8.975E-02	2.529E-01	3.805E-02	1.247E-01
.170	.650	1.165E+01	1.397E+00	5.445E-02	2.238E-01	3.345E-02	1.351E-01
.157	.675	1.313E+01	1.572E+00	2.903E-02	1.824E-01	2.819E-02	1.384E-01
.143	.700	1.502E+01	1.841E+00	1.284E-02	1.349E-01	2.272E-02	1.347E-01
.128	.725	1.758E+01	2.290E+00	4.383E-03	8.829E-02	1.743E-02	1.268E-01
.111	.750	2.171E+01	3.023E+00	1.655E-03	4.720E-02	1.275E-02	1.071E-01
.073	.800	4.655E+01	8.109E+00	4.997E-03	6.119E-03	6.007E-03	6.655E-02
.029	.850	6.653E+02	1.808E+02	9.755E-03	2.538E-02	4.078E-03	1.443E-01
.021	.900	1.320E+03	5.667E+02	6.493E-03	7.456E-02	3.338E-03	2.734E-01
.076	.950	5.670E+03	7.642E+02	6.237E-04	1.091E-01	2.145E-03	3.111E-02
.137	1.000	1.006E+01	2.907E-01	2.885E-04	6.493E-02	1.652E-03	2.086E-02
.203	1.050	1.159E-02	5.795E-02	1.595E-03	1.656E-02	4.183E-04	2.083E-03
.275	1.100	1.754E-02	4.731E-04	2.055E-03	4.971E-02	1.911E-04	6.344E-03
.353	1.150	2.715E-03	7.920E-03	1.014E-03	1.242E-01	8.678E-04	1.007E-02
.437	1.200	2.631E-04	6.341E-03	7.135E-05	5.721E-02	8.673E-04	4.226E-03
.526	1.250	1.624E-03	3.966E-03	7.445E-04	1.140E+00	2.200E-04	2.070E-03
.621	1.300	7.932E-04	6.259E-03	1.225E-03	1.125E+00	3.807E-04	3.899E-04
.823	1.400	1.527E-04	3.601E-04	3.894E-04	5.221E-03	5.471E-04	2.712E-04
1.310	1.600	1.990E-05	3.977E-05	9.207E-05	2.164E-03	2.828E-04	4.202E-05
1.894	1.800	4.368E-07	2.886E-06	3.078E-05	1.109E-06	5.969E-05	2.295E-06
2.543	2.000	4.933E-07	9.460E-08	3.305E-06	1.026E-05	7.070E-06	4.910E-07

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	-95.5	88.8	.3	54.1	70.5	78.4
.179	.250	-96.5	88.4	.2	47.8	75.2	59.7
.193	.300	-97.4	87.7	.2	42.2	77.7	52.5
.211	.350	-98.1	86.4	.0	37.6	77.5	46.3
.218	.400	-98.8	84.4	.3	33.9	76.6	44.0
.220	.450	-99.5	81.4	.7	31.0	74.9	43.5
.216	.500	-100.2	76.9	1.3	28.6	72.6	44.0
.206	.550	-101.0	70.5	1.8	26.4	69.7	45.3
.191	.600	-102.0	61.7	1.9	24.1	66.4	47.0
.181	.625	-102.8	56.2	1.6	22.8	64.4	47.9
.170	.650	-103.7	50.3	.6	21.3	62.5	48.9
.157	.675	-104.8	44.1	1.9	19.2	60.6	49.9
.143	.700	-106.3	37.8	7.7	16.5	58.4	50.7
.129	.725	-108.7	31.2	22.2	12.7	55.6	51.7
.111	.750	-111.7	25.2	63.9	5.8	52.8	52.4
.073	.800	-123.5	12.7	123.8	-49.4	43.3	54.6
.029	.850	-148.8	-5.9	118.6	-134.1	29.7	62.5
.021	.900	-166.9	-39.7	99.3	-156.5	-1.6	26.9
.076	.950	-133.7	123.5	105.7	-170.4	-77.9	-87.4
.137	1.000	-119.8	140.5	-16.2	175.5	-108.0	-111.1
.233	1.050	-55.2	139.1	-32.4	128.7	-141.4	-78.2
.275	1.100	-50.6	171.8	-32.6	54.1	104.1	26.3
.353	1.150	-61.6	-32.2	-25.8	52.9	60.2	54.2
.437	1.200	118.4	-20.6	42.5	102.4	39.9	90.9
.526	1.250	120.5	-31.2	135.5	-116.9	-2.8	-154.8
.621	1.300	125.6	-14.9	156.4	-11.9	-101.2	-59.3
.828	1.400	-69.7	146.6	-74.4	165.8	-156.1	-32.9
1.310	1.600	118.2	32.3	-174.4	32.6	-31.3	-136.0
1.884	1.800	43.1	-14.8	-46.0	64.0	133.6	168.3
2.548	2.000	9.7	-54.7	-121.9	-115.5	96.0	104.0

REC = 16

HEADING = 45. DEG
RAO (MOTION/NAVEHT)**2

SHIP SPEED = 5. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	4.009E-01	5.250E-01	9.906E-01	3.139E-03	2.161E-03	1.079E-03
.239	.250	3.966E-01	5.199E-01	9.724E-01	9.464E-03	5.439E-03	2.709E-03
.283	.300	3.879E-01	6.061E-01	9.521E-01	2.717E-02	1.156E-02	8.078E-03
.327	.350	3.711E-01	6.203E-01	9.174E-01	7.852E-02	2.131E-02	1.605E-02
.370	.400	3.466E-01	5.757E-01	8.582E-01	2.231E-01	3.499E-02	2.616E-02
.412	.450	3.131E-01	5.069E-01	7.699E-01	5.930E-01	5.182E-02	3.842E-02
.454	.500	2.709E-01	4.392E-01	6.522E-01	1.564E+00	6.999E-02	5.242E-02
.494	.550	2.225E-01	3.912E-01	5.120E-01	4.068E+00	8.602E-02	6.590E-02
.533	.600	1.698E-01	3.535E-01	3.630E-01	8.920E+00	9.567E-02	6.486E-02
.572	.650	1.439E-01	2.936E-01	2.910E-01	1.011E+01	9.685E-02	4.986E-02
.611	.700	1.191E-01	2.010E-01	2.241E-01	8.506E+00	9.512E-02	3.186E-02
.650	.750	9.595E-02	1.184E-01	1.643E-01	5.627E+00	9.065E-02	2.078E-02
.689	.800	7.495E-02	6.506E-02	1.154E-01	3.147E+00	8.416E-02	1.632E-02
.728	.850	5.655E-02	3.494E-02	7.612E-02	1.549E+00	7.596E-02	1.444E-02
.766	.900	4.112E-02	1.907E-02	4.542E-02	6.559E-01	6.561E-02	1.282E-02
.805	.950	1.918E-02	9.333E-03	9.608E-03	6.530E-02	4.152E-02	9.463E-03
.844	.990	7.589E-03	1.114E-02	1.356E-03	1.805E-01	1.928E-02	3.772E-03
.883	1.000	2.996E-03	1.320E-02	7.148E-03	4.236E-01	5.987E-03	7.624E-04
.922	1.050	1.633E-03	1.131E-02	1.284E-02	5.083E-01	4.168E-03	7.742E-06
.961	1.100	1.045E-03	6.647E-03	1.121E-02	5.809E-01	9.372E-03	5.828E-04
.999	1.150	4.381E-04	2.569E-03	4.934E-03	1.662E-01	1.297E-02	1.170E-03
1.038	1.200	5.058E-05	8.992E-04	1.059E-03	2.340E-02	9.854E-03	1.190E-03
1.077	1.250	5.218E-05	8.008E-04	2.103E-03	4.037E-03	3.672E-03	9.232E-04
1.116	1.300	1.699E-04	6.867E-04	4.063E-03	3.414E-02	1.982E-03	7.765E-04
1.155	1.350	1.273E-04	3.203E-04	3.809E-03	3.145E-02	5.471E-03	7.220E-04
1.194	1.400	1.902E-05	3.757E-04	3.196E-03	8.178E-03	7.032E-03	5.707E-04
1.233	1.450	1.306E-04	7.930E-04	2.155E-03	3.231E-02	6.852E-04	2.931E-04
1.272	1.500	5.885E-05	1.921E-04	6.702E-04	1.036E-02	8.565E-04	2.140E-04
1.311	1.550	1.815E-05	1.244E-04	6.145E-05	2.482E-03	8.374E-04	8.735E-05
1.350	1.600	1.801E-06	9.575E-05	3.454E-04	9.679E-04	2.835E-04	5.428E-05

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	-96.9	90.0	.2	74.2	91.3	10.0
.238	.250	-98.3	89.9	.2	67.9	89.5	10.5
.283	.300	-99.3	91.6	.0	59.9	87.5	5.7
.327	.350	-101.2	91.8	-1	54.0	85.8	8.0
.370	.400	-102.5	91.1	-1	51.4	84.3	12.6
.412	.450	-103.3	89.6	.0	52.3	82.6	18.0
.454	.500	-105.2	87.5	.3	57.6	80.6	24.7
.494	.550	-107.0	85.8	.8	70.5	78.3	34.5
.533	.600	-109.1	90.2	1.5	98.2	75.5	50.8
.553	.635	-110.4	96.3	2.0	118.7	73.9	59.7
.572	.650	-112.0	102.1	2.6	139.8	72.1	63.5
.591	.675	-113.8	104.3	3.3	157.7	70.0	59.8
.609	.700	-115.9	102.1	4.5	171.6	67.8	53.4
.627	.725	-118.5	95.3	6.2	176.6	65.3	48.9
.645	.750	-121.6	83.1	8.9	164.3	62.4	47.1
.681	.800	-130.7	43.7	22.0	103.0	54.8	48.2
.718	.850	-146.5	12.8	105.1	-19.7	42.1	52.6
.751	.900	-173.2	1.5	161.1	-1.5	11.9	59.4
.783	.950	154.2	.4	174.0	6.6	-53.4	-125.0
.815	1.000	129.3	7.0	-175.6	12.1	-90.8	-104.3
.845	1.050	111.6	25.6	-158.8	18.5	-107.7	-89.3
.876	1.100	83.0	69.8	-105.6	20.0	-122.2	-58.0
.905	1.150	-47.5	122.7	-25.4	-149.7	-148.7	-36.6
.933	1.200	-68.4	158.3	6.7	-145.3	139.2	2.7
.960	1.250	-81.3	-153.6	38.4	-133.2	95.5	42.2
.985	1.300	-115.5	-79.9	84.3	-93.9	78.5	30.9
1.035	1.400	119.0	-8.0	166.1	-11.9	-11.9	178.6
1.125	1.600	-65.3	-176.6	5.7	-146.5	145.5	21.7
1.199	1.800	124.9	66.6	34.8	41.4	-61.4	-106.8
1.258	2.000	52.0	-37.7	-171.7	8.2	70.9	167.6

REC = 17 HEADING = 45. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/NAVEHT)**2

HE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.185	.200	4.628E-01	5.811E-01	9.841E-01	3.174E-03	1.742E-03	9.783E-04
.227	.250	4.809E-01	5.866E-01	9.629E-01	9.429E-03	4.599E-03	2.669E-03
.267	.300	4.899E-01	6.440E-01	9.336E-01	2.543E-02	9.933E-03	7.834E-03
.305	.350	4.902E-01	6.911E-01	8.937E-01	6.841E-02	1.859E-02	1.792E-02
.341	.400	4.784E-01	6.677E-01	8.299E-01	1.761E-01	3.050E-02	3.119E-02
.375	.450	4.519E-01	6.039E-01	7.391E-01	4.195E-01	4.480E-02	4.759E-02
.407	.500	4.093E-01	5.205E-01	6.226E-01	9.152E-01	5.991E-02	6.612E-02
.434	.550	3.519E-01	4.332E-01	4.877E-01	1.814E+00	7.282E-02	8.436E-02
.466	.600	2.817E-01	3.526E-01	3.473E-01	3.211E+00	7.966E-02	9.793E-02
.480	.625	2.445E-01	3.153E-01	2.799E-01	4.045E+00	8.014E-02	1.010E-01
.493	.650	2.072E-01	2.784E-01	2.173E-01	4.846E+00	7.830E-02	1.001E-01
.506	.675	1.709E-01	2.392E-01	1.613E-01	5.426E+00	7.415E-02	9.429E-02
.518	.700	1.368E-01	1.947E-01	1.132E-01	5.527E+00	6.783E-02	8.292E-02
.530	.725	1.057E-01	1.438E-01	7.392E-02	4.319E+00	5.970E-02	6.648E-02
.541	.750	7.870E-02	9.089E-02	4.384E-02	3.621E+00	5.032E-02	4.746E-02
.562	.800	3.851E-02	1.837E-02	9.296E-03	9.210E-01	3.055E-02	1.668E-02
.582	.850	1.629E-02	1.642E-02	2.733E-04	1.122E+00	1.411E-02	4.971E-03
.593	.900	7.351E-03	3.954E-02	3.174E-03	3.233E+00	4.866E-03	2.891E-03
.615	.950	4.671E-03	4.604E-02	6.869E-03	4.553E+00	2.889E-03	3.267E-03
.629	1.000	3.185E-03	3.139E-02	6.032E-03	3.959E+00	4.899E-03	4.444E-03
.641	1.050	1.392E-03	1.184E-02	2.260E-03	2.127E+00	6.081E-03	5.132E-03
.651	1.100	1.305E-04	1.472E-03	3.411E-05	5.084E-01	4.449E-03	4.193E-03
.659	1.150	1.359E-04	1.314E-03	1.104E-03	8.901E-03	1.795E-03	2.144E-03
.665	1.200	5.025E-04	3.235E-03	2.849E-03	2.886E-01	1.041E-03	7.575E-04
.670	1.250	3.099E-04	2.183E-03	2.395E-03	4.179E-01	2.155E-03	8.161E-04
.672	1.300	3.234E-06	1.109E-03	5.946E-04	1.427E-01	2.561E-03	1.209E-03
.682	1.400	7.792E-04	6.165E-03	9.655E-04	5.039E-01	4.572E-04	1.111E-04
.643	1.600	5.550E-04	3.521E-03	6.705E-04	4.239E-01	3.114E-04	1.690E-04
.597	1.800	1.932E-04	4.572E-03	1.542E-04	1.142E+00	2.822E-04	1.514E-03
.515	2.000	8.180E-05	5.553E-04	2.029E-05	9.665E-02	1.084E-04	1.590E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.183	.270	-96.7	89.7	.3	70.7	87.7	16.3
.227	.255	-98.1	89.6	.3	64.8	87.0	15.6
.267	.300	-99.5	90.6	.3	59.0	85.6	11.9
.305	.333	-100.8	90.9	.1	51.8	84.1	11.7
.341	.400	-102.1	90.2	-.0	43.3	82.6	14.6
.375	.450	-103.4	88.6	-.1	47.4	80.8	18.5
.407	.500	-104.8	86.2	-.1	48.9	78.7	22.9
.433	.550	-106.4	82.9	-.0	52.9	76.0	27.9
.465	.600	-108.5	79.1	.0	60.1	72.8	33.9
.483	.625	-109.8	77.4	.1	65.3	70.8	37.5
.493	.650	-111.3	76.0	.2	71.9	68.7	41.5
.506	.675	-113.1	75.4	.3	80.1	66.3	45.9
.518	.700	-115.2	75.6	.6	90.5	63.6	50.9
.530	.725	-117.8	76.5	1.0	103.3	60.5	55.8
.541	.750	-121.1	76.8	1.8	119.4	56.9	60.0
.562	.800	-130.9	59.1	6.5	174.2	47.5	59.9
.582	.850	-148.0	-9.7	69.3	85.9	32.5	36.7
.593	.900	-176.0	-24.6	160.4	-48.8	2.2	-4.0
.615	.950	153.3	-22.9	165.7	-31.6	-55.8	-38.5
.629	1.000	132.1	-17.5	167.3	-21.6	-98.1	-58.9
.641	1.050	118.8	-7.5	168.8	-15.4	-66.7	-66.7
.651	1.100	104.2	24.0	-167.7	-13.5	-121.0	-64.9
.659	1.150	-60.1	135.5	-18.3	-11.2	-141.4	-51.8
.665	1.200	-69.3	166.1	-15.5	-187.7	-173.8	-12.6
.670	1.250	-74.6	-166.6	-12.5	-164.0	113.3	-48.4
.672	1.300	-144.2	-97.7	-1.4	-145.8	69.9	79.7
.672	1.400	111.7	-17.2	145.1	-5.9	44.3	157.6
.693	1.500	-69.6	165.2	-36.6	176.1	-48.5	17.8
.597	1.600	118.3	-22.3	126.2	-26.9	93.0	-79.3
.515	2.000	53.5	-20.9	-170.7	95.8	-137.4	-99.1

REC = 18 HEADING = 45. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.178	.200	5.455E-01	6.554E-01	9.782E-01	3.311E-03	1.375E-03	7.359E-04
.215	.250	5.800E-01	6.753E-01	9.539E-01	9.775E-03	3.830E-03	2.237E-03
.250	.300	6.283E-01	6.928E-01	9.151E-01	2.457E-02	8.322E-03	5.823E-03
.282	.350	6.615E-01	7.771E-01	8.704E-01	6.437E-02	1.594E-02	1.733E-02
.311	.400	6.807E-01	7.838E-01	8.320E-01	1.538E-01	2.632E-02	3.406E-02
.337	.450	6.797E-01	7.362E-01	7.031E-01	3.338E-01	3.863E-02	5.603E-02
.361	.500	6.526E-01	6.513E-01	5.913E-01	6.433E-01	5.113E-02	8.222E-02
.382	.550	5.959E-01	5.453E-01	4.595E-01	1.083E+00	6.127E-02	1.094E-01
.400	.600	5.101E-01	4.323E-01	3.249E-01	1.556E+00	6.629E-02	1.315E-01
.407	.625	4.582E-01	3.765E-01	2.611E-01	1.739E+00	6.620E-02	1.382E-01
.413	.650	4.222E-01	3.220E-01	2.022E-01	1.839E+00	6.419E-02	1.407E-01
.421	.675	3.439E-01	2.713E-01	1.498E-01	1.823E+00	6.029E-02	1.381E-01
.427	.700	2.556E-01	2.244E-01	1.049E-01	1.670E+00	5.470E-02	1.302E-01
.432	.725	2.292E-01	1.821E-01	6.841E-02	1.383E+00	4.773E-02	1.169E-01
.437	.750	1.722E-01	1.447E-01	4.047E-02	1.001E+00	3.287E-02	9.902E-02
.444	.800	9.339E-02	8.574E-02	8.431E-03	2.667E-01	2.374E-02	5.605E-02
.449	.850	4.205E-02	4.661E-02	1.233E-04	2.226E-01	1.071E-02	1.823E-02
.449	.900	2.007E-02	2.291E-02	2.927E-03	1.233E+00	3.552E-03	1.733E-03
.447	.950	1.475E-02	8.795E-03	6.012E-03	2.601E+00	1.950E-03	9.388E-03
.443	1.000	1.232E-02	2.048E-03	4.307E-03	3.041E+00	3.002E-03	2.604E-02
.436	1.050	6.876E-03	3.837E-03	1.607E-03	2.071E+00	3.499E-03	3.123E-02
.426	1.100	1.533E-03	1.090E-02	3.666E-05	6.679E-01	2.354E-03	1.976E-02
.414	1.150	4.416E-04	1.257E-02	1.109E-03	2.781E-02	8.399E-04	7.403E-03
.398	1.200	3.099E-03	4.462E-03	2.269E-03	2.092E-01	4.457E-04	1.014E-02
.380	1.250	2.808E-03	3.701E-04	1.565E-03	3.507E-01	9.204E-04	2.133E-02
.353	1.300	1.701E-04	1.577E-02	2.254E-04	1.295E-01	1.007E-03	2.095E-02
.309	1.400	1.355E-02	1.514E-02	7.326E-04	1.805E-01	8.194E-05	9.053E-03
.175	1.600	6.303E-02	2.985E-02	3.996E-04	5.842E-02	4.322E-06	1.233E-02
.012	1.800	1.346E+03	2.134E+03	1.098E-04	7.320E-02	1.173E-04	1.605E+00
.228	2.000	1.189E-03	2.923E-02	1.814E-05	1.751E-02	1.049E-05	3.223E-03

PHASE (MOTION-WAVEHEIGHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-96.5	89.5	.3	55.5	82.5	25.5
.215	.250	-97.9	89.3	.4	60.9	83.5	23.0
.251	.300	-99.1	89.2	.4	55.2	83.6	21.1
.282	.350	-100.4	89.8	.2	49.2	82.0	17.1
.311	.400	-101.6	89.0	.0	45.3	80.6	18.2
.337	.450	-102.8	87.3	.2	43.5	78.8	20.8
.361	.500	-104.1	84.6	.5	43.2	75.6	23.9
.382	.550	-105.7	80.8	.9	44.2	73.7	27.4
.400	.600	-107.6	75.6	.4	46.4	70.2	31.1
.407	.625	-109.8	72.3	.7	47.8	69.1	33.0
.415	.650	-110.2	68.7	.0	49.6	65.8	35.0
.421	.675	-111.8	64.5	.3	51.7	63.2	37.1
.427	.700	-113.8	59.8	.7	54.2	60.3	39.3
.432	.725	-116.2	54.4	.9	57.6	57.1	41.7
.437	.750	-119.3	48.4	.0	62.3	53.3	44.3
.444	.800	-128.5	33.8	.1	83.3	43.6	50.7
.449	.850	-145.1	15.3	.2	177.6	28.4	62.2
.449	.900	-173.6	-7.2	.2	-147.9	-1.7	119.5
.447	.950	154.2	-34.9	.2	-10.9	-59.4	-148.8
.443	1.000	133.0	-88.6	.2	-138.9	-102.6	-132.3
.436	1.050	121.5	-174.7	.2	-138.6	-126.3	-120.6
.426	1.100	113.4	157.3	.3	-144.7	-147.1	-103.5
.414	1.150	-61.1	145.0	.8	164.1	173.9	-61.4
.399	1.200	-65.5	133.8	.4	61.1	108.5	6.7
.380	1.250	-64.3	-9.3	.0	53.6	60.7	39.0
.359	1.300	-36.9	-32.3	.4	53.5	37.4	61.4
.309	1.400	110.8	-34.8	.3	-142.7	-45.6	-179.1
.175	1.500	-62.2	110.1	.6	55.8	146.6	32.9
.012	1.600	136.1	-117.2	.7	-147.3	1.3	-42.0
.229	2.000	41.5	-42.3	.7	-9.0	-21.1	44.6

PEC = 19

HEADING = 45. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 20. KNOTS

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	6.432E-01	7.577E-01	9.737E-01	3.546E-03	1.076E-03	4.678E-04
.204	.250	7.298E-01	8.023E-01	9.465E-01	1.050E-02	3.138E-03	1.568E-03
.233	.300	8.224E-01	8.432E-01	9.046E-01	2.729E-02	7.022E-03	4.473E-03
.259	.350	9.165E-01	9.055E-01	8.478E-01	6.499E-02	1.331E-02	1.298E-02
.281	.400	1.005E+00	9.553E-01	7.750E-01	1.458E-01	2.224E-02	3.118E-02
.300	.450	1.075E+00	9.396E-01	6.777E-01	2.949E-01	3.268E-02	5.793E-02
.314	.500	1.114E+00	8.704E-01	5.597E-01	5.240E-01	4.303E-02	9.330E-02
.325	.550	1.107E+00	7.611E-01	4.291E-01	8.043E-01	5.108E-02	1.339E-01
.333	.600	1.040E+00	6.297E-01	2.985E-01	1.045E+00	5.459E-02	1.735E-01
.335	.625	9.829E-01	5.623E-01	2.377E-01	1.110E+00	5.412E-02	1.894E-01
.336	.650	9.102E-01	4.979E-01	1.923E-01	1.115E+00	5.207E-02	2.066E-01
.337	.675	8.238E-01	4.391E-01	1.329E-01	1.054E+00	4.851E-02	2.057E-01
.336	.700	7.262E-01	3.879E-01	9.159E-02	9.251E-01	4.363E-02	2.038E-01
.335	.725	6.211E-01	3.456E-01	5.841E-02	7.419E-01	3.773E-02	1.928E-01
.332	.750	5.131E-01	3.126E-01	3.356E-02	5.283E-01	3.122E-02	1.741E-01
.325	.800	3.102E-01	2.679E-01	6.184E-03	1.432E-01	1.826E-02	1.175E-01
.314	.850	1.579E-01	2.293E-01	1.114E-04	1.022E-02	8.144E-03	5.306E-02
.299	.900	8.145E-02	1.660E-01	2.913E-03	1.821E-01	2.644E-03	8.591E-03
.280	.950	7.392E-02	8.030E-02	4.976E-03	4.532E-01	1.196E-03	2.167E-03
.253	1.000	9.519E-02	9.811E-03	3.375E-03	5.496E-01	1.615E-03	2.334E-02
.232	1.050	9.128E-02	1.734E-02	8.021E-04	4.309E-01	1.847E-03	4.684E-02
.202	1.100	3.906E-02	1.493E-01	1.057E-04	2.099E-01	1.301E-03	4.693E-02
.169	1.150	3.544E-03	3.405E-01	1.207E-03	6.445E-02	5.051E-04	1.492E-02
.131	1.200	1.991E-01	3.936E-01	1.081E-03	5.684E-02	1.046E-03	3.944E-03
.091	1.250	1.285E+00	7.036E-01	1.365E-03	8.067E-02	1.833E-04	8.039E-02
.045	1.300	8.202E+00	1.533E+01	1.406E-04	4.756E-02	7.015E-04	2.253E-01
.055	1.400	6.387E+00	2.155E+01	1.072E-03	8.045E-02	4.536E-03	9.313E-02
.300	1.600	9.117E-03	1.676E-03	5.495E-04	1.134E-01	3.133E-05	9.414E-03
.606	1.800	1.808E-04	3.022E-03	2.137E-04	9.142E-01	2.208E-04	1.148E-03
.970	2.000	7.782E-06	2.379E-04	1.271E-04	3.613E-03	2.867E-04	1.560E-04

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	-96.4	89.2	.3	62.1	74.6	40.8
.204	.250	-97.7	89.0	.3	56.5	78.8	35.2
.233	.300	-98.7	88.6	.3	51.1	80.0	30.5
.259	.350	-99.8	88.3	.2	45.8	79.6	26.0
.281	.400	-100.9	87.5	.1	41.6	78.2	24.3
.300	.450	-102.1	85.6	.5	39.0	76.5	25.4
.314	.500	-103.3	82.5	1.0	37.6	74.2	27.4
.323	.550	-104.6	78.0	1.7	37.0	71.3	29.9
.333	.600	-106.3	71.5	2.6	36.9	67.8	32.6
.335	.650	-107.3	67.3	3.2	37.1	65.7	34.0
.336	.650	-108.5	62.4	3.7	37.3	63.4	35.5
.337	.675	-109.8	56.7	4.3	37.7	60.9	37.0
.335	.700	-111.5	50.2	4.9	38.2	58.1	38.6
.335	.725	-113.6	42.9	5.4	39.0	54.9	40.2
.332	.750	-116.2	35.1	5.7	40.2	51.3	41.9
.325	.800	-124.1	19.3	3.9	46.9	42.4	45.4
.314	.850	-139.0	5.5	92.5	147.2	28.8	49.1
.299	.900	-167.5	-5.4	152.2	-160.8	2.6	52.1
.280	.950	-155.9	-14.3	151.8	-158.1	-49.9	-118.6
.253	1.000	-132.2	-27.8	147.6	-161.1	-92.2	-118.7
.232	1.050	-120.1	156.7	135.9	-163.3	-112.8	-119.0
.202	1.100	-110.6	145.6	9.4	177.9	-126.1	-117.6
.168	1.150	-15.8	134.8	-28.9	141.4	-140.1	-116.0
.131	1.200	-53.7	111.2	-40.1	78.3	-177.9	75.7
.091	1.250	-56.0	47.1	-53.9	44.9	114.4	73.4
.045	1.300	-61.4	-8.3	-113.9	14.4	99.2	68.8
.055	1.400	129.5	-70.0	125.5	-125.0	55.1	-8.6
.300	1.600	-66.7	148.1	-52.8	45.3	61.5	19.0
.506	1.800	118.7	-21.8	139.3	-22.7	-141.2	-77.8
.970	2.000	70.6	-41.1	37.6	-33.3	11.8	148.2

REC = 20 HEADING = 45. DEG SHIP SPEED = 25. KNOTS
RAO (MOIION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	7.642E-01	8.989E-01	9.719E-01	3.848E-03	8.741E-04	2.981E-04
.192	.250	9.165E-01	9.978E-01	9.422E-01	1.145E-02	2.594E-03	1.020E-03
.216	.300	1.099E+00	1.101E+00	8.384E-01	2.961E-02	5.932E-03	3.18E-03
.235	.350	1.311E+00	1.189E+00	8.335E-01	6.849E-02	1.107E-02	8.059E-03
.251	.400	1.552E+00	1.274E+00	7.490E-01	1.435E-01	1.812E-02	1.943E-02
.262	.450	1.816E+00	1.341E+00	6.480E-01	2.745E-01	2.671E-02	4.33E-02
.268	.500	2.084E+00	1.348E+00	5.277E-01	4.599E-01	3.499E-02	7.842E-02
.269	.550	2.330E+00	1.292E+00	3.972E-01	6.653E-01	4.109E-02	1.23E-01
.265	.600	2.519E+00	1.196E+00	2.692E-01	8.186E-01	4.325E-02	1.70E-01
.262	.625	2.579E+00	1.133E+00	2.106E-01	8.493E-01	4.251E-02	1.91E-01
.253	.650	2.608E+00	1.085E+00	1.578E-01	8.387E-01	4.052E-02	2.09E-01
.252	.675	2.601E+00	1.022E+00	1.122E-01	7.847E-01	3.740E-02	2.20E-01
.245	.700	2.554E+00	9.695E-01	7.474E-02	6.948E-01	3.342E-02	2.26E-01
.237	.725	2.465E+00	9.465E-01	4.624E-02	5.861E-01	2.900E-02	2.364E-01
.223	.750	2.332E+00	9.485E-01	2.536E-02	4.548E-01	2.415E-02	2.37E-01
.205	.800	1.948E+00	1.027E+00	3.758E-03	1.889E-01	1.453E-02	2.08E-01
.179	.850	1.455E+00	1.234E+00	5.640E-04	2.516E-02	7.020E-03	1.45E-01
.143	.900	1.103E+00	1.538E+00	3.993E-03	2.667E-02	2.690E-03	7.58E-02
.112	.950	1.681E+00	2.243E+00	5.611E-03	1.478E-01	1.106E-03	4.3E-02
.072	1.000	9.748E+00	6.318E+00	3.551E-03	2.556E-01	1.164E-03	7.65E-02
.027	1.050	3.902E+02	1.810E+02	2.164E-03	2.755E-01	2.909E-03	2.65E-01
.023	1.100	2.650E+02	2.669E+01	3.337E-03	2.001E-01	3.746E-03	9.35E-02
.078	1.150	1.788E-01	6.087E-01	2.135E-03	8.052E-02	1.039E-03	4.654E-02
.135	1.200	1.702E-01	3.597E-01	2.143E-03	5.799E-02	7.191E-05	2.84E-03
.200	1.250	4.664E-02	1.677E-02	1.102E-03	1.049E-01	2.083E-04	2.49E-02
.263	1.300	1.580E-03	6.329E-02	1.166E-04	7.855E-02	4.684E-04	2.25E-02
.419	1.400	4.348E-03	2.234E-03	9.440E-04	5.505E-01	7.201E-05	6.95E-03
.776	1.500	2.746E-04	8.997E-04	7.704E-04	1.045E-01	2.790E-04	3.35E-04
1.203	1.800	1.481E-05	9.575E-05	5.694E-04	2.528E-03	5.53E-04	8.66E-05
1.713	2.000	4.671E-07	9.946E-06	1.720E-05	1.349E-04	4.718E-05	1.324E-05

PHASE (MOTION-HAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	-96.3	88.9	.2	58.5	62.9	67.5
.192	.250	-97.5	88.7	.2	52.9	71.5	55.2
.216	.300	-98.4	88.2	.1	47.6	74.6	44.8
.236	.350	-99.3	87.3	.0	43.0	75.9	40.5
.251	.400	-100.1	86.1	-.3	39.0	75.5	37.0
.262	.450	-101.1	84.1	-.9	35.9	73.9	35.1
.268	.500	-102.0	80.9	-1.6	33.7	71.8	33.6
.269	.550	-103.1	76.2	-2.5	32.0	69.1	36.9
.266	.600	-104.2	69.6	-3.5	30.4	65.9	38.5
.262	.625	-104.9	65.4	-4.1	29.5	64.2	39.2
.258	.650	-105.7	60.7	-4.7	28.5	62.2	39.8
.252	.675	-106.5	55.3	-5.2	27.1	60.2	40.1
.245	.700	-107.6	49.3	-5.7	25.5	57.9	40.1
.237	.725	-109.0	41.8	-6.0	24.2	55.2	40.5
.228	.750	-110.8	33.7	-6.0	22.6	52.3	40.7
.205	.800	-116.0	18.4	-5.8	17.1	45.6	40.0
.179	.850	-126.3	1.2	13.7	-3.1	36.1	36.2
.143	.900	-143.3	-12.2	140.7	-130.6	20.5	22.5
.112	.950	171.8	-40.0	137.6	-151.2	-10.6	-13.1
.072	1.000	140.7	-63.5	123.5	-160.5	-41.7	-41.5
.027	1.050	125.0	-76.0	57.3	-172.2	-36.5	-21.0
.023	1.100	108.8	170.0	-4.3	170.3	-57.7	-90.8
.078	1.150	15.7	120.2	-34.4	140.6	-103.1	-149.5
.136	1.200	-54.0	110.1	-42.8	77.3	-152.4	84.8
.200	1.250	-53.1	.5	-47.0	43.3	76.3	50.0
.269	1.300	-41.6	-32.3	-55.7	35.4	48.9	63.1
.419	1.400	110.4	-38.4	138.1	-140.1	-55.2	-171.3
.775	1.600	-73.1	-170.3	-10.9	-164.5	91.8	19.2
1.203	1.800	120.1	74.0	-23.6	38.3	-77.9	-100.7
1.713	2.000	39.3	-23.0	-20.0	26.7	93.4	-171.2

REC = 21 HEADING = 60. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	2.03E-01	7.70E-01	9.96E-01	4.55E-03	1.01E-03	7.98E-04
.242	.250	2.03E-01	7.65E-01	9.86E-01	1.32E-02	2.67E-03	1.98E-03
.288	.300	1.98E-01	9.19E-01	9.83E-01	3.47E-02	5.78E-03	6.39E-03
.334	.350	1.91E-01	9.50E-01	9.74E-01	9.39E-02	1.14E-02	1.24E-02
.379	.400	1.88E-01	9.06E-01	9.50E-01	2.57E-01	1.88E-02	2.51E-02
.423	.450	1.70E-01	8.34E-01	9.06E-01	7.18E-01	2.93E-02	3.01E-02
.467	.500	1.55E-01	7.71E-01	8.38E-01	2.08E+00	4.22E-02	4.28E-02
.510	.550	1.35E-01	7.48E-01	7.43E-01	6.01E+00	5.63E-02	5.43E-02
.553	.600	1.19E-01	6.72E-01	6.25E-01	1.16E+01	7.11E-02	4.28E-02
.574	.625	1.08E-01	5.48E-01	5.60E-01	1.13E+01	7.70E-02	2.93E-02
.595	.650	9.83E-02	4.17E-01	4.92E-01	9.12E+00	8.28E-02	2.11E-02
.615	.675	8.75E-02	3.15E-01	4.35E-01	6.72E+00	8.90E-02	1.93E-02
.635	.700	7.62E-02	2.40E-01	3.80E-01	4.83E+00	9.41E-02	2.02E-02
.655	.725	6.69E-02	1.82E-01	3.26E-01	3.44E+00	9.84E-02	2.16E-02
.676	.750	5.82E-02	1.37E-01	2.73E-01	2.42E+00	1.08E-01	2.27E-02
.716	.800	3.85E-02	7.30E-02	1.75E-01	1.10E+00	9.92E-02	2.24E-02
.755	.850	2.43E-02	3.45E-02	9.65E-02	3.87E-01	8.97E-02	1.89E-02
.794	.900	1.38E-02	1.54E-02	4.13E-02	6.78E-02	7.19E-02	1.34E-02
.832	.950	7.14E-03	9.30E-03	1.14E-02	1.02E-02	4.83E-02	7.73E-03
.859	1.000	3.18E-03	9.68E-03	2.26E-03	9.74E-02	2.62E-02	3.27E-03
.895	1.050	1.75E-03	1.10E-02	4.70E-03	2.16E-01	1.10E-02	8.41E-04
.931	1.100	1.12E-03	1.03E-02	8.63E-03	2.80E-01	6.04E-03	2.44E-04
.977	1.150	9.12E-04	7.24E-03	9.37E-03	2.45E-01	9.61E-03	6.47E-04
1.011	1.200	6.34E-04	3.59E-02	6.64E-03	1.52E-01	1.58E-02	1.15E-03
1.045	1.250	3.11E-04	1.23E-03	4.99E-03	5.80E-02	1.62E-02	1.23E-03
1.078	1.300	7.41E-05	5.60E-04	6.25E-03	7.62E-03	1.02E-02	9.45E-04
1.113	1.400	3.83E-05	7.20E-04	3.57E-03	1.48E-02	2.02E-03	5.44E-04
1.146	1.600	1.11E-05	5.52E-04	2.72E-03	4.39E-03	1.17E-03	2.32E-04
1.175	1.800	1.32E-06	1.99E-04	3.28E-04	4.20E-04	5.40E-04	1.23E-04
1.175	2.000	2.55E-06	1.24E-04	2.63E-04	3.22E-04	1.57E-04	5.35E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	-98.2	89.9	.2	78.8	92.4	10.4
.242	.250	-99.8	89.9	.2	74.4	90.3	10.7
.288	.300	-101.5	91.7	.1	63.1	88.1	1.5
.334	.350	-102.9	91.9	-.2	62.8	86.8	3.8
.379	.400	-104.2	91.3	-.2	60.1	85.7	8.9
.423	.450	-105.4	90.3	-.1	61.0	84.5	15.2
.467	.500	-106.7	89.1	.1	67.6	83.3	23.4
.510	.550	-108.2	89.5	.5	85.0	81.8	36.4
.553	.600	-109.9	96.4	.9	119.0	80.0	53.8
.574	.625	-110.8	100.6	1.2	137.8	79.0	56.6
.595	.650	-111.8	102.8	1.5	152.9	77.9	51.8
.615	.675	-113.0	103.5	1.9	163.6	76.8	44.5
.635	.700	-114.2	103.0	2.4	171.6	75.5	39.4
.656	.725	-115.5	101.8	3.1	177.3	74.2	36.8
.676	.750	-117.1	100.1	3.9	178.2	72.9	36.0
.715	.800	-120.8	94.4	6.3	171.4	69.8	37.2
.755	.850	-125.8	84.1	10.2	164.8	66.1	40.4
.794	.900	-132.9	64.5	17.2	151.7	61.6	45.1
.832	.950	-143.7	33.6	33.3	139.5	55.3	51.7
.869	1.000	-150.4	6.5	93.0	122.2	44.9	62.2
.905	1.050	175.3	-7.3	157.8	6.8	23.6	84.8
.941	1.100	148.3	-12.2	177.8	10.3	20.8	156.2
.977	1.150	126.0	-9.6	158.4	13.0	-61.9	-143.9
1.011	1.200	110.6	.0	125.7	14.6	-79.2	-120.0
1.045	1.250	99.3	23.8	-78.8	14.5	-88.1	-101.0
1.078	1.300	85.5	75.2	-35.1	7.7	-97.9	-78.0
1.143	1.400	-63.5	145.8	11.7	-146.1	-176.3	-8.4
1.264	1.600	110.8	-48.3	164.7	-.5	77.9	133.9
1.375	1.800	-179.0	106.6	40.9	-159.5	-86.1	-57.7
1.475	2.000	4.5	-55.8	-142.7	-8.1	84.6	133.8

REC = 22 HEADING = 60. DEG SHIP SPEED = 10. KNOTS RAO (MOTION/HAVENT)**2 YAW

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	2.273E-01	8.274E-01	9.905E-01	4.571E-03	7.465E-04	7.187E-04
.234	.250	2.303E-01	8.331E-01	9.784E-01	1.311E-02	2.102E-03	1.901E-03
.276	.300	2.320E-01	9.506E-01	9.687E-01	3.235E-02	4.867E-03	6.440E-03
.318	.350	2.306E-01	1.028E+00	9.549E-01	8.379E-02	9.574E-03	1.374E-02
.358	.400	2.263E-01	1.008E+00	9.257E-01	2.144E-01	1.649E-02	2.303E-02
.397	.450	2.176E-01	9.459E-01	8.735E-01	5.365E-01	2.570E-02	3.485E-02
.434	.500	2.050E-01	8.711E-01	8.132E-01	1.301E+00	3.686E-02	4.947E-02
.471	.550	1.878E-01	8.044E-01	7.183E-01	2.993E+00	4.909E-02	6.546E-02
.505	.600	1.662E-01	7.471E-01	6.075E-01	6.097E+00	6.096E-02	7.679E-02
.522	.625	1.540E-01	7.072E-01	5.488E-01	7.901E+00	6.619E-02	7.690E-02
.539	.650	1.411E-01	6.453E-01	4.841E-01	9.275E+00	7.062E-02	7.190E-02
.555	.675	1.276E-01	5.582E-01	4.210E-01	9.693E+00	7.401E-02	6.325E-02
.571	.700	1.138E-01	4.551E-01	3.588E-01	9.070E+00	7.616E-02	5.393E-02
.587	.725	9.993E-02	3.547E-01	2.939E-01	7.754E+00	7.689E-02	4.626E-02
.602	.750	8.622E-02	2.655E-01	2.445E-01	6.155E+00	7.652E-02	4.097E-02
.632	.800	6.059E-02	1.360E-01	1.556E-01	3.205E+00	7.303E-02	3.487E-02
.661	.850	3.896E-02	6.168E-02	8.520E-02	1.283E+00	6.339E-02	2.906E-02
.697	.900	2.264E-02	2.693E-02	3.632E-02	2.932E-01	4.901E-02	2.154E-02
.713	.950	1.187E-02	1.694E-02	9.983E-03	1.959E-02	3.272E-02	1.319E-02
.737	1.000	5.935E-03	1.856E-02	5.616E-04	1.823E-01	1.809E-02	5.970E-03
.761	1.050	3.352E-03	2.173E-02	1.555E-03	5.010E-01	8.251E-03	1.454E-03
.782	1.100	2.437E-03	2.050E-02	5.722E-03	7.242E-01	4.476E-03	8.481E-06
.803	1.150	1.919E-03	1.457E-02	7.739E-03	7.157E-01	5.452E-03	7.089E-04
.822	1.200	1.263E-03	7.254E-03	6.177E-03	4.983E-01	7.882E-03	1.970E-03
.840	1.250	5.557E-04	2.131E-03	2.827E-03	2.184E-01	8.553E-03	2.564E-03
.855	1.300	1.048E-04	5.398E-04	4.718E-04	3.431E-02	6.479E-03	2.220E-03
.885	1.400	1.104E-04	1.511E-03	1.796E-03	6.517E-02	1.903E-03	1.053E-03
.928	1.600	1.084E-04	1.450E-03	3.843E-04	1.685E-02	1.945E-03	6.932E-04
.949	1.800	3.545E-06	6.370E-04	2.664E-04	4.368E-03	1.223E-03	5.913E-04
.950	2.000	6.901E-06	5.536E-04	8.541E-05	6.655E-03	5.292E-04	3.832E-04

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	-98.1	89.7	.2	76.2	86.7	16.4
.234	.250	-99.7	89.7	.3	72.4	86.2	15.5
.276	.300	-101.3	91.1	.1	67.4	84.8	7.3
.318	.350	-102.7	91.4	-.0	62.5	83.9	7.3
.359	.400	-103.9	90.9	-.1	59.7	83.1	10.8
.397	.450	-105.2	89.8	-.1	59.8	82.2	15.5
.434	.500	-106.5	88.4	-.1	63.4	81.0	21.1
.471	.550	-107.9	87.1	-.0	71.9	79.4	28.1
.505	.600	-109.6	87.2	.0	86.9	77.4	37.1
.522	.625	-110.5	88.5	.1	97.2	75.2	42.1
.533	.650	-111.5	90.5	.0	108.6	74.8	46.7
.555	.675	-112.7	92.8	.0	120.5	73.4	49.9
.571	.700	-114.0	94.8	-.0	131.7	71.7	51.2
.587	.725	-115.4	96.0	-.1	141.6	69.9	50.7
.602	.750	-117.1	96.3	-.1	150.0	68.0	49.2
.632	.800	-121.0	93.3	.2	162.9	63.7	46.3
.667	.850	-126.4	84.0	.9	173.4	58.5	45.5
.687	.900	-134.1	63.8	2.2	-173.3	51.9	46.5
.713	.950	-145.9	31.9	5.8	-93.3	43.1	48.9
.737	1.000	-163.9	5.4	28.4	-19.4	29.9	52.5
.761	1.050	171.2	-7.9	165.4	-3.8	6.8	58.3
.782	1.100	145.6	-12.9	175.5	-3.9	-34.6	106.9
.803	1.150	125.8	-12.7	-179.7	-.8	-77.7	-117.8
.822	1.200	111.7	-7.3	-174.4	1.4	-103.8	-107.6
.840	1.250	99.5	9.9	-165.5	2.5	-121.9	-95.9
.856	1.300	80.1	69.8	-137.5	-.6	-140.1	-79.4
.885	1.400	-71.1	152.7	-1.4	-159.6	146.0	-18.5
.923	1.500	110.8	-48.7	75.8	-25.1	18.2	122.6
.949	1.600	-110.0	108.5	-114.9	121.7	-153.3	-73.6
.950	2.000	21.7	-78.7	3.2	-82.9	13.1	111.6

REC = 23

HEADING = 60. DEG
RAOSHIP SPEED = 15. KNOTS
(MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	2.535E-01	8.982E-01	9.852E-01	4.679E-03	5.411E-04	5.536E-04
.225	.250	2.645E-01	9.174E-01	9.708E-01	1.333E-02	1.669E-03	1.607E-03
.265	.300	2.739E-01	1.010E+00	9.543E-01	3.279E-02	4.111E-03	5.492E-03
.302	.350	2.811E-01	1.115E+00	9.367E-01	7.908E-02	8.310E-03	1.393E-02
.337	.400	2.866E-01	1.122E+00	9.044E-01	1.904E-01	1.356E-02	2.495E-02
.370	.450	2.834E-01	1.085E+00	8.537E-01	4.384E-01	2.245E-02	3.923E-02
.402	.500	2.763E-01	1.014E+00	7.828E-01	9.453E-01	3.213E-02	5.719E-02
.431	.550	2.622E-01	9.288E-01	6.922E-01	1.877E+00	4.267E-02	7.802E-02
.459	.600	2.407E-01	8.282E-01	5.853E-01	3.359E+00	5.551E-02	9.907E-02
.471	.625	2.232E-01	7.393E-01	5.277E-01	4.291E+00	5.682E-02	1.082E-01
.484	.650	2.121E-01	7.376E-01	4.686E-01	5.246E+00	6.043E-02	1.152E-01
.495	.675	1.955E-01	6.793E-01	4.094E-01	6.148E+00	6.315E-02	1.197E-01
.507	.700	1.777E-01	6.137E-01	3.511E-01	6.854E+00	6.481E-02	1.238E-01
.518	.725	1.599E-01	5.405E-01	2.946E-01	7.235E+00	6.530E-02	1.185E-01
.529	.750	1.405E-01	4.593E-01	2.418E-01	7.201E+00	6.452E-02	1.128E-01
.543	.800	1.032E-01	2.963E-01	1.496E-01	5.891E+00	5.919E-02	9.447E-02
.565	.850	6.839E-02	1.584E-01	7.902E-02	3.581E+00	4.947E-02	7.152E-02
.581	.900	4.126E-02	6.876E-02	3.404E-02	1.407E+00	3.706E-02	4.856E-02
.595	.950	2.273E-02	3.112E-02	9.604E-03	2.273E-01	2.430E-02	2.897E-02
.616	1.000	1.245E-02	3.009E-02	7.876E-04	3.233E-01	1.359E-02	1.212E-02
.624	1.050	7.824E-03	4.232E-02	7.283E-04	1.401E+00	6.448E-03	2.942E-03
.629	1.100	6.297E-03	4.871E-02	3.812E-03	2.588E+00	3.312E-03	9.134E-04
.633	1.150	5.435E-03	4.115E-02	4.516E-03	3.371E+00	3.096E-03	4.052E-03
.633	1.200	3.835E-03	2.384E-02	3.354E-03	3.026E+00	3.874E-03	8.498E-03
.635	1.250	1.451E-03	7.332E-03	1.239E-03	1.864E+00	3.899E-03	1.048E-02
.638	1.300	3.831E-04	1.532E-04	1.006E-04	6.117E-01	2.862E-03	8.444E-03
.628	1.400	3.052E-04	7.107E-03	1.606E-03	2.716E-01	9.525E-04	1.080E-03
.592	1.500	6.064E-04	4.726E-03	5.083E-05	1.088E-02	5.199E-04	2.702E-03
.524	1.800	7.305E-05	1.122E-03	2.783E-05	2.727E-01	3.077E-04	6.508E-03
.425	2.000	2.981E-04	4.822E-03	4.172E-05	1.617E-01	9.343E-05	7.552E-03

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
134	200	-98.0	89.5	.3	73.1	77.5	24.8
225	250	-99.5	89.5	.3	69.7	80.3	22.1
265	300	-101.0	90.3	.2	65.6	90.7	14.6
302	350	-102.4	90.3	.1	61.3	80.3	11.7
337	400	-103.6	90.3	-.1	58.6	79.9	13.7
370	450	-104.8	89.2	-.2	58.2	79.3	17.1
402	500	-105.1	87.7	-.4	50.1	78.2	21.1
431	550	-106.5	85.8	-.6	64.5	76.6	25.6
458	600	-107.5	84.0	-.8	71.5	74.4	30.6
471	625	-109.1	83.2	-1.0	75.9	73.1	33.3
484	650	-110.1	82.5	-1.2	80.9	71.6	36.1
495	675	-111.1	82.1	-1.5	86.3	70.0	38.8
507	700	-112.2	81.8	-1.8	92.2	68.2	41.5
518	725	-113.4	81.7	-2.2	98.3	66.2	44.0
529	750	-114.8	81.5	-2.7	104.6	64.0	46.3
543	800	-116.4	80.3	-3.2	117.1	59.9	49.7
556	850	-118.0	75.8	-4.5	129.4	52.7	51.5
568	900	-120.4	63.3	-6.4	144.0	45.0	51.9
581	950	-125.9	34.5	-9.0	179.8	34.9	50.9
595	1000	-134.1	22.5	-13.4	175.6	20.7	47.2
606	1050	-146.7	-22.5	-28.3	-51.6	-1.7	32.2
616	1100	-166.0	-31.4	-174.8	-43.5	-38.8	-44.1
624	1150	-183.8	-35.5	172.1	-39.3	-31.8	-85.4
629	1200	-196.1	-37.6	166.6	-37.2	-112.5	-91.3
633	1250	-204.3	-39.3	161.0	-36.8	-135.1	-90.2
635	1300	-205.5	-41.9	151.5	-39.7	-157.4	-84.9
638	1350	-205.1	-44.9	99.8	-159.9	-125.6	-34.6
643	1400	-204.4	-47.9	-13.7	-135.0	-11.3	100.1
648	1450	-202.5	-51.2	177.8	-70.8	171.0	-35.3
652	1500	-158.6	-147.3	36.7	61.5	-29.2	72.1
654	1550	-6.7	-35.0	-145.4			

REC = 24 HEADING = 60. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	2.830E-01	9.891E-01	9.816E-01	4.836E-03	4.101E-04	3.753E-04
.217	.250	3.047E-01	1.020E+00	9.650E-01	1.392E-02	1.334E-03	1.195E-03
.253	.300	3.295E-01	1.080E+00	9.413E-01	3.469E-02	3.235E-03	3.685E-03
.285	.350	3.465E-01	1.220E+00	9.205E-01	8.016E-02	6.961E-03	1.243E-02
.316	.400	3.642E-01	1.270E+00	8.844E-01	1.860E-01	1.241E-02	2.499E-02
.344	.450	3.770E-01	1.264E+00	8.304E-01	4.054E-01	1.953E-02	4.225E-02
.369	.500	3.839E-01	1.200E+00	7.573E-01	8.245E-01	2.795E-02	6.515E-02
.391	.550	3.794E-01	1.125E+00	6.664E-01	1.536E+00	3.691E-02	9.389E-02
.411	.600	3.645E-01	1.014E+00	5.615E-01	2.359E+00	4.530E-02	1.269E-01
.420	.625	3.523E-01	9.544E-01	5.055E-01	3.241E+00	4.875E-02	1.445E-01
.423	.650	3.370E-01	8.915E-01	4.486E-01	3.930E+00	5.181E-02	1.606E-01
.436	.675	3.195E-01	8.265E-01	3.918E-01	4.613E+00	5.395E-02	1.765E-01
.443	.700	2.971E-01	7.584E-01	3.360E-01	5.246E+00	5.516E-02	1.891E-01
.449	.725	2.731E-01	6.875E-01	2.823E-01	5.744E+00	5.536E-02	1.991E-01
.455	.750	2.470E-01	6.146E-01	2.317E-01	6.039E+00	5.475E-02	2.059E-01
.464	.800	1.970E-01	4.671E-01	1.437E-01	5.793E+00	4.951E-02	2.011E-01
.471	.850	1.352E-01	3.265E-01	7.673E-02	4.349E+00	4.092E-02	1.753E-01
.475	.900	8.675E-02	2.085E-01	3.262E-02	2.213E+00	3.024E-02	1.293E-01
.476	.950	4.949E-02	1.235E-01	9.051E-03	4.704E-01	1.947E-02	7.523E-02
.473	1.000	2.749E-02	7.464E-02	7.859E-04	2.233E-01	1.059E-02	2.769E-02
.471	1.050	1.864E-02	5.000E-02	9.625E-04	1.746E+00	4.81E-03	2.567E-03
.465	1.100	1.776E-02	3.498E-02	3.359E-03	4.083E+00	2.256E-03	6.112E-03
.456	1.150	1.832E-02	2.167E-02	4.217E-03	5.572E+00	1.848E-03	2.960E-02
.444	1.200	1.588E-02	1.435E-02	2.919E-03	5.133E+00	2.124E-03	5.245E-02
.430	1.250	9.374E-03	1.998E-02	1.028E-03	3.170E+00	2.008E-03	5.589E-02
.413	1.300	2.819E-03	3.395E-02	2.728E-04	1.113E+00	1.326E-03	3.746E-02
.371	1.400	1.592E-03	2.244E-02	1.722E-03	1.564E-01	3.212E-04	7.567E-03
.256	1.600	6.988E-03	1.375E-01	1.998E-04	3.000E-02	7.341E-05	1.389E-02
.099	1.800	1.111E-01	1.904E+00	5.832E-05	1.066E-01	2.014E-05	1.079E-01
.100	2.000	6.610E-02	1.174E+00	2.910E-05	6.556E-02	1.918E-06	6.480E-02

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-97.9	89.3	.3	59.1	63.4	37.3
.217	.250	-93.4	89.2	.3	65.4	71.9	31.8
.253	.300	-100.6	89.4	.2	61.3	75.4	25.5
.286	.350	-103.0	90.0	.0	56.7	75.7	17.7
.316	.400	-103.2	89.5	-.2	53.3	75.9	17.8
.344	.450	-104.4	88.3	-.5	51.6	75.6	19.9
.363	.500	-105.7	86.5	-.8	51.4	74.7	22.6
.391	.550	-107.0	84.2	-1.3	52.5	73.1	25.7
.411	.600	-108.5	81.2	-2.0	54.7	70.8	28.8
.429	.625	-109.4	79.4	-2.5	56.1	69.5	31.5
.435	.650	-110.4	77.5	-3.0	57.6	67.9	32.1
.443	.675	-111.4	75.5	-3.6	59.3	66.2	33.8
.443	.700	-112.5	73.3	-4.3	61.1	64.3	35.4
.455	.725	-113.9	70.8	-5.2	63.0	62.2	37.1
.454	.750	-115.3	68.2	-6.1	64.9	59.9	38.7
.471	.800	-119.0	62.0	-8.4	68.8	54.6	41.9
.475	.850	-124.2	53.9	-11.5	73.0	48.2	45.0
.475	.900	-131.9	42.6	-15.9	78.6	40.3	48.1
.475	.950	-144.0	26.3	-23.5	94.6	30.2	51.5
.475	1.000	-163.6	3.9	-51.0	153.6	16.1	56.9
.471	1.050	-182.2	-22.5	-173.9	-127.2	-5.7	80.0
.465	1.100	-143.2	-49.4	165.7	-124.5	-41.8	-147.2
.456	1.150	-128.5	-79.7	155.4	-126.0	-86.0	-134.2
.444	1.200	-114.5	-123.0	144.2	-129.4	-118.5	-128.4
.430	1.250	-101.1	-168.5	123.8	-134.6	-142.1	-122.2
.413	1.300	-100.1	-166.0	53.9	-143.5	-164.8	-111.9
.371	1.400	-69.9	144.4	-27.3	71.3	111.0	-20.2
.355	1.600	76.6	-44.5	158.0	-44.8	.4	59.5
.393	1.800	140.7	137.5	-.7	172.8	-83.4	-139.6
.400	2.000	-33.0	-45.4	-164.6	-1.6	-179.2	38.8

REC = 25 HEADING = 60. DEG SHIP SPEED = 25. KNOTS MOTION/NAVEHT)**2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.174	.200	3.170E-01	1.105E+00	9.907E-01	5.156E-03	3.810E-04	2.451E-04
.203	.250	3.530E-01	1.175E+00	9.621E-01	1.479E-02	1.129E-03	8.020E-04
.241	.300	3.915E-01	1.235E+00	9.343E-01	3.725E-01	2.589E-03	2.269E-03
.270	.350	4.327E-01	1.339E+00	9.072E-01	8.462E-02	5.850E-03	9.125E-03
.295	.400	4.744E-01	1.492E+00	8.679E-01	1.879E-01	1.066E-02	2.184E-02
.317	.450	5.140E-01	1.527E+00	8.107E-01	3.933E-01	1.591E-02	4.070E-02
.335	.500	5.482E-01	1.555E+00	7.351E-01	7.575E-01	2.422E-02	6.730E-02
.351	.550	5.730E-01	1.437E+00	6.435E-01	1.326E+00	3.189E-02	1.027E-01
.364	.600	5.834E-01	1.230E+00	5.383E-01	2.090E+00	3.893E-02	1.463E-01
.369	.625	5.817E-01	1.263E+00	4.822E-01	2.517E+00	4.186E-02	1.703E-01
.373	.650	5.747E-01	1.130E+00	4.269E-01	2.943E+00	4.420E-02	1.950E-01
.379	.675	5.621E-01	1.111E+00	3.713E-01	3.334E+00	4.583E-02	2.194E-01
.373	.700	5.434E-01	1.029E+00	3.165E-01	3.653E+00	4.663E-02	2.424E-01
.380	.725	5.186E-01	9.441E-01	2.545E-01	3.854E+00	4.653E-02	2.627E-01
.381	.750	4.879E-01	8.535E-01	2.153E-01	3.933E+00	4.551E-02	2.789E-01
.380	.800	4.405E-01	6.999E-01	1.313E-01	3.571E+00	4.076E-02	2.934E-01
.376	.850	3.184E-01	5.662E-01	6.793E-02	2.601E+00	3.309E-02	2.771E-01
.363	.900	2.232E-01	4.682E-01	2.722E-02	1.365E+00	2.391E-02	2.281E-01
.358	.950	1.393E-01	4.007E-01	5.604E-03	3.591E-01	1.495E-02	1.548E-01
.344	1.000	8.117E-02	3.433E-01	3.719E-04	3.856E-03	7.925E-03	7.653E-02
.326	1.050	5.783E-02	2.692E-01	1.365E-03	2.915E-01	3.338E-03	1.874E-02
.306	1.100	6.655E-02	1.675E-01	3.493E-03	8.797E-04	1.307E-03	1.254E-04
.282	1.150	1.015E-01	6.519E-02	3.621E-03	1.269E+00	5.002E-04	1.994E-02
.255	1.200	1.347E-01	2.215E-02	1.953E-03	1.264E+00	7.607E-04	5.081E-02
.225	1.250	1.401E-01	9.236E-02	5.265E-04	9.615E-01	6.021E-04	8.035E-02
.191	1.300	9.901E-02	3.873E-01	4.005E-04	5.349E-01	3.356E-04	8.328E-02
.114	1.400	7.018E-02	2.787E+00	2.059E-03	1.183E-01	1.103E-04	2.895E-02
.080	1.600	1.147E-01	1.000E+01	5.369E-04	6.302E-02	2.456E-04	1.217E-01
.327	1.800	5.540E-04	4.038E-02	6.993E-05	1.173E-01	8.164E-05	1.300E-02
.625	2.000	6.448E-05	2.809E-04	6.374E-05	1.459E-01	1.392E-04	1.347E-03

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
174	200	-97.7	89.1	.2	55.4	43.9	56.8
209	250	-99.2	89.0	.2	61.5	60.1	47.4
241	300	-100.3	88.7	.1	57.3	67.5	40.3
270	350	-101.6	89.1	-.1	52.6	69.8	26.8
295	400	-102.8	88.6	-.4	48.7	70.8	24.0
317	450	-103.9	87.4	-.8	46.2	70.9	24.6
335	500	-105.1	85.5	-1.4	44.8	70.2	26.2
351	550	-106.3	82.9	-2.1	44.1	68.7	28.3
364	600	-107.7	79.5	-3.2	44.0	66.5	30.4
369	625	-108.5	77.4	-3.8	44.0	65.1	31.5
373	650	-109.3	75.0	-4.6	44.0	63.5	32.6
376	675	-110.3	72.3	-5.4	44.1	61.8	33.8
378	700	-111.3	69.2	-6.4	44.1	59.8	34.9
380	725	-112.4	65.9	-7.5	44.1	57.7	36.0
381	750	-113.7	62.0	-8.7	44.1	55.4	37.1
383	800	-115.9	52.7	-11.7	43.9	50.1	39.4
375	850	-121.4	41.1	-15.6	43.5	43.9	41.7
363	900	-128.0	27.7	-21.0	43.3	36.4	44.3
353	950	-138.8	13.4	-30.5	42.7	27.1	47.2
344	1000	-157.5	-1.1	-74.8	122.3	14.7	50.5
325	1050	172.9	-12.6	172.5	-151.5	-3.8	54.8
305	1100	142.6	-25.5	156.0	-151.3	-34.8	-146.1
282	1150	122.9	-46.6	145.2	-154.4	-76.1	-122.1
253	1200	111.7	-110.9	132.0	-160.5	-104.9	-120.7
225	1250	105.0	177.4	99.6	-169.0	-121.8	-122.9
191	1300	99.0	152.3	14.6	177.9	-127.5	-126.3
114	1400	-42.5	111.2	-41.9	104.3	-103.9	174.1
083	1500	65.0	-56.6	153.0	-47.6	109.4	28.8
324	1600	179.3	144.7	23.5	-151.3	154.4	-108.6
526	2000	2.6	-94.4	-32.8	171.2	-21.3	105.3

REC = 25

HEADING = 75. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.197	.200	6.411E-02	9.331E-01	1.001E+00	5.534E-03	2.124E-04	2.705E-04
.246	.250	6.263E-02	9.200E-01	9.977E-01	1.556E-02	5.969E-04	6.539E-04
.294	.300	6.098E-02	1.142E+00	1.003E+00	3.714E-02	1.457E-03	2.539E-03
.342	.350	5.877E-02	1.183E+00	1.020E+00	9.088E-02	2.940E-03	4.524E-03
.389	.400	5.629E-02	1.142E+00	1.027E+00	2.315E-01	5.233E-03	6.738E-03
.436	.450	5.360E-02	1.077E+00	1.024E+00	6.362E-01	8.514E-03	9.877E-03
.483	.500	5.071E-02	1.033E+00	1.006E+00	1.976E+00	1.292E-02	1.397E-02
.529	.550	4.759E-02	1.029E+00	9.682E-01	6.317E+00	1.848E-02	1.526E-02
.576	.600	4.423E-02	8.237E-01	9.077E-01	8.846E+00	2.510E-02	4.186E-03
.598	.625	4.245E-02	6.792E-01	8.693E-01	6.974E+00	2.876E-02	1.926E-03
.621	.650	4.056E-02	5.903E-01	8.543E-01	5.300E+00	3.372E-02	3.013E-03
.644	.675	3.865E-02	5.211E-01	8.376E-01	4.105E+00	3.923E-02	5.293E-03
.667	.700	3.670E-02	4.766E-01	8.191E-01	3.281E+00	4.530E-02	7.894E-03
.689	.725	3.473E-02	4.328E-01	7.984E-01	2.696E+00	5.196E-02	1.047E-02
.712	.750	3.274E-02	3.925E-01	7.754E-01	2.264E+00	5.920E-02	1.286E-02
.757	.800	2.874E-02	3.182E-01	7.215E-01	1.664E+00	7.526E-02	1.693E-02
.801	.850	2.476E-02	2.500E-01	6.551E-01	1.251E+00	9.307E-02	1.974E-02
.845	.900	2.086E-02	1.800E-01	5.750E-01	9.368E-01	1.116E-01	2.117E-02
.889	.950	1.711E-02	1.337E-01	4.808E-01	6.813E-01	1.289E-01	2.130E-02
.932	1.000	1.359E-02	8.847E-02	3.757E-01	4.701E-01	1.421E-01	1.931E-02
.975	1.050	1.020E-02	5.258E-02	2.635E-01	2.989E-01	1.483E-01	1.738E-02
1.018	1.100	7.118E-03	2.746E-02	1.569E-01	1.674E-01	1.423E-01	1.403E-02
1.060	1.150	4.571E-03	1.318E-02	7.473E-02	7.606E-02	1.204E-01	1.037E-02
1.102	1.200	2.592E-03	6.343E-03	3.010E-02	2.311E-02	8.769E-02	6.854E-03
1.144	1.250	1.480E-03	4.629E-03	1.620E-02	2.576E-03	5.495E-02	3.898E-03
1.185	1.300	8.062E-04	5.664E-03	1.589E-02	6.034E-03	3.028E-02	1.706E-03
1.226	1.400	3.437E-04	8.578E-03	1.490E-02	4.185E-02	7.581E-03	1.333E-04
1.426	1.600	1.094E-04	1.608E-03	1.385E-03	3.206E-02	3.469E-03	1.029E-03
1.580	1.800	2.955E-07	3.070E-04	2.017E-03	2.728E-03	9.695E-04	1.351E-04
1.729	2.000	1.787E-06	4.148E-05	1.704E-04	2.694E-03	3.221E-04	1.673E-04

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
197	200	-101.8	89.9	.2	84.0	95.7	13.2
246	250	-103.9	89.9	.2	82.1	91.7	13.5
294	300	-106.1	91.7	.2	79.5	89.4	-7.9
342	350	-107.5	91.8	-1	76.6	87.3	-4.9
389	400	-108.7	91.4	-3	74.8	86.7	3.0
436	450	-108.7	91.4	-3	76.0	86.2	13.1
483	500	-109.8	90.8	-2	76.0	86.2	27.0
529	550	-110.8	90.4	.0	83.9	85.7	51.1
576	600	-112.0	92.9	.4	108.1	84.9	70.9
598	625	-113.3	99.8	.7	150.8	84.0	47.0
621	650	-114.0	100.5	.9	166.9	83.4	21.1
644	675	-114.9	100.7	1.2	176.8	83.0	13.2
667	700	-115.7	100.4	1.6	-177.1	82.6	11.4
689	725	-116.6	99.9	2.0	-173.3	82.2	11.4
712	750	-117.5	99.5	2.6	-170.9	81.7	12.1
757	800	-118.4	99.0	3.2	-169.4	81.3	13.7
801	850	-120.4	97.9	4.8	-168.1	80.6	15.5
845	900	-122.4	96.5	7.1	-167.9	79.7	17.1
889	950	-124.6	94.8	10.2	-168.4	79.8	18.9
932	1000	-127.1	92.7	14.5	-169.4	80.4	20.8
975	1050	-129.7	89.8	20.2	-170.6	82.3	23.7
1019	1100	-132.4	85.9	28.5	-171.7	85.6	27.0
1060	1150	-135.3	79.3	42.9	-173.4	89.2	30.3
1102	1200	-139.1	67.1	64.7	-176.6	91.8	34.0
1144	1250	-145.1	44.6	90.3	175.8	91.7	38.7
1185	1300	-154.7	12.4	140.2	138.8	87.3	46.3
1267	1400	-169.2	-13.5	176.4	38.8	59.2	122.5
1426	1500	150.8	-34.7	-155.9	15.4	-37.3	-144.4
1580	1600	92.1	-34.4	138.1	-12.7	-106.4	-74.8
1729	2000	-22.3	121.2	56.7	-117.8	130.7	27.5
		-109.6	-158.7	-2.4	-171.7		

REC = 27

HEADING = 75. DEG
SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVEHT)*2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	6.741E-02	9.671E-01	9.955E-01	5.534E-03	1.102E-04	2.480E-04
.242	.250	6.674E-02	9.670E-01	9.906E-01	1.545E-02	3.958E-04	6.150E-04
.283	.300	6.595E-02	1.166E+00	9.903E-01	3.534E-02	1.141E-03	2.745E-03
.333	.350	6.439E-02	1.200E+00	1.007E+00	8.340E-02	2.443E-03	5.086E-03
.378	.400	6.254E-02	1.205E+00	1.010E+00	2.032E-01	4.564E-03	7.540E-03
.422	.450	6.039E-02	1.148E+00	1.004E+00	5.138E-01	7.514E-03	1.060E-02
.466	.500	5.790E-02	1.095E+00	9.850E-01	1.351E+00	1.141E-02	1.433E-02
.509	.550	5.506E-02	1.062E+00	9.484E-01	3.422E+00	1.626E-02	1.666E-02
.551	.600	5.182E-02	9.703E-01	8.929E-01	6.024E+00	2.196E-02	1.226E-02
.593	.625	5.005E-02	8.713E-01	8.567E-01	6.247E+00	2.506E-02	8.783E-03
.613	.650	4.818E-02	7.830E-01	8.164E-01	5.713E+00	2.827E-02	6.825E-03
.633	.675	4.618E-02	6.750E-01	7.902E-01	4.956E+00	3.241E-02	7.082E-03
.654	.700	4.409E-02	6.032E-01	7.683E-01	4.241E+00	3.718E-02	8.637E-03
.674	.725	4.194E-02	5.413E-01	7.449E-01	3.632E+00	4.231E-02	1.078E-02
.713	.750	3.973E-02	4.864E-01	7.189E-01	3.132E+00	4.778E-02	1.316E-02
.732	.800	3.519E-02	3.900E-01	6.623E-01	2.378E+00	5.954E-02	1.777E-02
.752	.850	3.055E-02	3.050E-01	5.985E-01	1.825E+00	7.203E-02	2.149E-02
.790	.900	2.593E-02	2.295E-01	5.269E-01	1.390E+00	8.451E-02	2.385E-02
.827	.950	2.144E-02	1.638E-01	4.497E-01	1.027E+00	9.599E-02	2.462E-02
.864	1.000	1.722E-02	1.092E-01	3.687E-01	7.208E-01	1.051E-01	2.378E-02
.900	1.050	1.339E-02	6.633E-02	2.373E-01	4.671E-01	1.103E-01	2.148E-02
.936	1.100	1.003E-02	3.997E-02	2.109E-01	2.673E-01	1.101E-01	1.806E-02
.970	1.150	7.068E-03	1.699E-02	1.411E-01	1.249E-01	1.029E-01	1.384E-02
1.004	1.200	4.672E-03	8.014E-03	8.594E-02	3.896E-02	8.847E-02	9.449E-03
1.038	1.250	2.942E-03	5.803E-03	4.890E-02	3.544E-03	6.821E-02	5.639E-03
1.070	1.300	1.743E-03	7.245E-03	2.915E-02	6.781E-03	4.584E-02	2.713E-03
1.134	1.400	7.375E-04	1.118E-02	1.621E-02	6.349E-02	1.314E-02	2.558E-04
1.252	1.600	2.941E-04	3.051E-03	7.423E-04	5.336E-02	6.224E-03	1.652E-03
1.360	1.800	5.573E-06	4.811E-04	2.612E-03	5.808E-03	2.365E-03	3.824E-04
1.457	2.000	5.864E-06	2.232E-04	3.900E-04	7.707E-03	5.939E-04	3.306E-04

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	-101.7	89.7	.2	82.2	80.6	18.8
.242	.250	-103.8	89.8	.3	80.8	81.2	18.0
.288	.300	-105.9	91.4	.0	79.8	79.9	-2.0
.333	.350	-107.4	91.6	-.1	77.6	80.4	-1.3
.373	.400	-108.6	91.2	-.2	76.3	81.1	4.6
.422	.450	-109.7	90.6	-.1	77.7	81.6	12.8
.466	.500	-110.8	91.1	.0	84.4	81.7	23.3
.509	.550	-112.0	90.9	.2	100.4	81.3	37.5
.551	.600	-113.3	94.5	.4	127.7	80.6	51.4
.572	.625	-114.0	96.4	.5	141.9	80.1	51.5
.593	.650	-114.7	97.5	.5	153.6	79.4	44.9
.613	.675	-115.6	98.3	.7	162.3	79.9	35.4
.633	.700	-116.5	98.6	.9	168.5	78.4	28.5
.654	.725	-117.5	98.6	1.2	172.9	77.8	24.5
.674	.750	-118.5	98.4	1.5	176.1	77.2	22.4
.713	.800	-120.6	97.6	2.4	179.9	75.9	21.1
.752	.850	-122.9	96.3	3.6	-178.2	74.5	21.4
.791	.900	-125.5	94.7	5.3	-177.4	73.9	22.2
.827	.950	-128.5	92.4	7.6	-177.2	71.5	23.5
.864	1.000	-131.9	89.3	10.9	-177.5	70.0	25.0
.903	1.050	-135.9	85.0	15.2	-178.1	68.6	26.9
.939	1.100	-140.7	78.1	21.2	-179.0	67.2	29.4
.970	1.150	-146.1	66.0	30.7	-179.3	66.3	32.8
1.004	1.200	-152.7	43.1	45.1	174.9	65.8	36.8
1.033	1.250	-161.4	9.8	65.3	151.3	64.8	42.0
1.070	1.300	-173.3	-16.9	91.8	25.7	62.4	49.7
1.134	1.400	151.7	-38.8	142.6	7.6	44.4	108.7
1.252	1.600	95.1	-41.3	157.9	-6.2	-57.5	-144.1
1.361	1.800	17.5	115.8	15.0	-133.7	-112.0	-79.2
1.457	2.000	-92.4	-172.3	-41.6	-165.1	112.0	23.4

REC = 23 HEADING = 75. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/WAVEHT)**2

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.132	.200	7.094E-02	1.007E+00	9.909E-01	5.531E-03	6.714E-05	2.015E-04
.237	.250	7.121E-02	1.015E+00	9.846E-01	1.547E-02	2.789E-04	5.262E-04
.282	.300	7.125E-02	1.192E+00	9.894E-01	3.432E-02	9.229E-04	2.692E-03
.335	.350	7.071E-02	1.278E+00	9.959E-01	7.798E-02	2.152E-03	5.392E-03
.377	.400	5.972E-02	1.273E+00	9.968E-01	1.800E-01	4.058E-03	8.069E-03
.409	.450	5.835E-02	1.223E+00	9.884E-01	4.279E-01	6.740E-03	1.120E-02
.443	.500	6.648E-02	1.176E+00	9.675E-01	9.916E-01	1.025E-02	1.488E-02
.489	.550	6.414E-02	1.127E+00	9.314E-01	2.132E+00	1.457E-02	1.807E-02
.527	.600	6.125E-02	1.058E+00	8.786E-01	3.713E+00	1.960E-02	1.830E-02
.555	.625	5.955E-02	9.998E-01	8.459E-01	4.377E+00	2.233E-02	1.707E-02
.584	.650	5.778E-02	9.257E-01	8.093E-01	4.631E+00	2.516E-02	1.562E-02
.582	.675	5.585E-02	8.425E-01	7.691E-01	4.627E+00	2.806E-02	1.455E-02
.600	.700	5.370E-02	7.595E-01	7.283E-01	4.415E+00	3.112E-02	1.428E-02
.619	.725	5.142E-02	6.886E-01	7.021E-01	4.119E+00	3.524E-02	1.548E-02
.655	.750	4.902E-02	6.218E-01	6.744E-01	3.788E+00	3.949E-02	1.715E-02
.670	.800	4.395E-02	4.998E-01	6.151E-01	3.134E+00	4.847E-02	2.120E-02
.703	.850	3.858E-02	3.916E-01	5.510E-01	2.545E+00	5.763E-02	2.515E-02
.735	.900	3.308E-02	2.960E-01	4.832E-01	2.021E+00	6.636E-02	2.812E-02
.766	.950	2.760E-02	2.128E-01	4.131E-01	1.547E+00	7.394E-02	2.955E-02
.796	1.000	2.231E-02	1.435E-01	3.427E-01	1.133E+00	7.955E-02	2.918E-02
.825	1.050	1.755E-02	8.898E-02	2.744E-01	7.542E-01	8.236E-02	2.700E-02
.853	1.100	1.331E-02	4.953E-02	2.103E-01	4.511E-01	8.166E-02	2.328E-02
.881	1.150	9.744E-03	2.436E-02	1.533E-01	2.217E-01	7.702E-02	1.851E-02
.906	1.200	6.944E-03	1.152E-02	1.049E-01	7.533E-02	6.651E-02	1.338E-02
.931	1.250	4.844E-03	7.664E-03	6.684E-02	8.330E-03	5.675E-02	8.552E-03
.956	1.300	3.344E-03	9.870E-03	3.389E-02	6.547E-03	4.283E-02	4.583E-03
1.000	1.400	1.681E-03	1.633E-02	9.782E-03	1.015E-01	1.654E-02	6.016E-04
1.078	1.600	5.888E-04	5.282E-03	2.861E-03	1.005E-01	6.702E-03	2.522E-03
1.140	1.800	3.211E-05	5.325E-04	6.831E-03	9.830E-03	5.759E-03	8.756E-04
1.185	2.000	2.800E-05	4.762E-04	4.808E-04	2.561E-02	6.594E-04	6.019E-04

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
192	200	-101.7	89.6	.3	80.1	49.5	26.2
237	250	-103.8	89.6	.3	79.4	64.1	23.9
282	300	-105.8	91.1	.1	79.4	68.6	3.7
325	350	-107.3	91.3	-.0	78.0	72.0	2.4
367	400	-108.5	91.0	-.1	77.4	74.5	6.7
409	450	-109.6	90.4	-.1	79.1	76.1	13.3
443	500	-110.7	89.8	-.1	84.9	76.9	21.3
488	550	-111.9	89.9	-.0	96.3	77.1	30.7
527	600	-113.2	91.3	-.0	113.7	76.6	39.6
545	650	-113.9	92.4	-.1	123.4	75.1	42.2
564	700	-114.7	93.5	-.1	132.7	75.6	42.9
582	750	-115.5	94.3	-.2	140.9	74.8	41.6
600	800	-116.4	94.9	-.4	147.8	74.0	39.0
618	850	-117.4	95.6	-.3	153.4	73.4	36.2
635	900	-118.4	96.0	-.2	157.7	72.7	33.8
670	950	-120.6	95.9	-.0	163.9	71.1	30.6
703	1000	-123.1	95.1	.3	167.6	69.2	29.3
735	1050	-125.9	93.7	.7	170.0	67.0	29.0
765	1100	-129.2	91.5	1.5	171.3	64.5	29.4
795	1150	-133.0	88.5	2.6	172.1	61.8	30.4
825	1200	-137.5	83.9	4.2	172.3	58.8	31.8
853	1250	-143.1	76.8	6.5	172.1	55.6	33.7
881	1300	-149.8	64.6	9.7	171.3	52.1	36.3
906	1350	-158.0	42.3	14.2	169.3	48.2	39.9
931	1400	-168.2	7.9	20.5	160.2	43.7	45.1
955	1450	179.5	-21.3	29.6	9.8	38.3	53.2
1000	1500	149.1	-43.9	63.6	-2.7	20.8	101.2
1078	1550	92.7	-51.2	-156.5	-10.6	-91.6	-144.0
1140	1600	7.7	120.1	-88.9	-130.8	-139.8	-88.6
1185	1650	-85.4	177.5	-50.4	-159.6	77.3	18.3

REC = 29

HEADING = 75. DEG
RAOSHIP SPEED = 20. KNOTS
(MOTION/HAVENT)*2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	7.471E-02	1.055E+00	9.381E-01	5.68E-03	9.592E-05	1.506E-04
.233	.230	7.608E-02	1.072E+00	9.808E-01	1.589E-02	2.588E-04	4.157E-04
.276	.300	7.718E-02	1.224E+00	9.826E-01	3.43E-02	8.220E-04	2.380E-03
.317	.330	7.785E-02	1.331E+00	9.878E-01	7.57E-02	1.973E-03	5.403E-03
.357	.400	7.793E-02	1.349E+00	9.867E-01	1.719E-01	3.746E-03	8.401E-03
.395	.450	7.765E-02	1.321E+00	9.764E-01	3.89E-01	6.222E-03	1.188E-02
.432	.500	7.679E-02	1.278E+00	9.543E-01	8.58E-01	9.439E-03	1.615E-02
.468	.550	7.530E-02	1.235E+00	9.184E-01	1.77E+00	1.337E-02	2.080E-02
.502	.600	7.31E-02	1.167E+00	8.68E-01	3.20E+00	1.794E-02	2.425E-02
.519	.625	7.170E-02	1.152E+00	8.37E-01	3.99E+00	2.041E-02	2.491E-02
.535	.650	7.009E-02	1.103E+00	8.039E-01	4.58E+00	2.299E-02	2.482E-02
.551	.675	6.828E-02	1.041E+00	7.61E-01	5.17E+00	2.563E-02	2.424E-02
.567	.700	6.626E-02	9.670E-01	7.27E-01	5.42E+00	2.831E-02	2.358E-02
.582	.725	6.401E-02	8.868E-01	6.85E-01	5.46E+00	3.100E-02	2.315E-02
.597	.750	6.156E-02	8.046E-01	6.48E-01	5.33E+00	3.363E-02	2.313E-02
.626	.800	5.605E-02	6.583E-01	5.801E-01	4.81E+00	4.077E-02	2.615E-02
.654	.850	4.995E-02	5.220E-01	5.15E-01	4.14E+00	4.784E-02	2.997E-02
.680	.900	4.344E-02	3.989E-01	4.43E-01	3.44E+00	5.429E-02	3.325E-02
.705	.950	3.674E-02	2.906E-01	3.87E-01	2.75E+00	5.954E-02	3.543E-02
.728	1.000	3.014E-02	1.993E-01	3.14E-01	2.08E+00	6.300E-02	3.580E-02
.750	1.050	2.392E-02	1.265E-01	2.51E-01	1.45E+00	6.411E-02	3.408E-02
.771	1.100	1.834E-02	7.287E-02	1.93E-01	9.25E-01	6.249E-02	3.035E-02
.791	1.150	1.359E-02	3.775E-02	1.43E-01	4.94E-01	5.800E-02	2.500E-02
.809	1.200	9.838E-03	1.905E-02	9.73E-02	1.96E-01	5.089E-02	1.877E-02
.825	1.250	7.048E-03	1.292E-02	6.11E-02	3.62E-02	4.174E-02	1.249E-02
.841	1.300	5.135E-03	1.484E-02	3.40E-02	3.99E-03	3.150E-02	7.010E-03
.857	1.400	3.173E-03	2.437E-02	5.31E-03	1.79E-01	1.290E-02	9.974E-04
.904	1.600	1.151E-03	9.853E-03	6.89E-03	2.54E-01	3.470E-03	4.159E-03
.920	1.800	5.302E-05	9.276E-04	6.03E-03	1.67E-02	5.018E-03	2.309E-03
.913	2.000	9.473E-05	1.588E-03	9.76E-04	1.37E-01	1.978E-04	1.026E-03

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
193	200	-10.6	89.4	.2	77.5	12.9	36.1
233	250	-10.8	89.4	.2	76.9	40.9	31.6
276	300	-10.7	90.6	.1	76.9	54.6	10.0
317	350	-10.2	91.0	-.1	75.9	61.9	6.4
357	400	-10.2	92.7	-.1	75.2	66.6	9.3
395	450	-10.5	90.0	-.2	76.4	69.6	14.6
432	500	-10.6	89.5	-.3	81.5	71.3	21.2
468	550	-11.6	88.8	-.3	88.6	72.0	28.6
502	600	-13.1	89.1	-.5	100.9	71.9	36.3
540	625	-13.8	89.7	-.7	108.3	71.6	39.6
575	650	-14.6	90.4	-.8	115.9	71.1	42.2
611	675	-15.4	91.3	-1.1	123.3	70.5	43.7
647	700	-16.2	92.0	-1.3	130.1	69.7	44.1
682	725	-17.2	92.7	-1.7	136.2	68.7	43.6
717	750	-18.1	93.1	-2.1	141.5	67.6	42.5
756	800	-19.4	93.8	-2.4	149.5	65.9	39.7
790	850	-20.0	93.6	-2.9	155.0	63.7	37.6
824	900	-20.9	92.6	-3.4	158.7	61.1	36.4
859	950	-23.3	90.7	-3.9	161.2	58.1	36.0
893	1000	-25.3	87.8	-4.3	162.8	54.7	36.3
928	1050	-28.1	83.4	-4.7	163.8	51.0	37.1
961	1100	-30.1	76.4	-5.0	164.2	46.8	38.5
991	1150	-31.4	64.6	-5.1	163.9	42.2	40.4
1023	1200	-32.4	44.0	-4.8	162.3	37.0	43.1
1055	1250	-34.6	12.9	-4.0	156.0	31.0	47.1
1087	1300	-37.0	-43.5	-2.2	23.4	24.0	53.2
1119	1350	-39.1	-58.4	10.2	-8.4	3.9	91.5
1150	1400	-41.0	-73.4	153.4	-13.5	-119.1	-143.7
1180	1450	-43.0	136.4	157.2	-174.4	178.2	-98.3
1210	1500	-45.0	168.3	-97.4	-179.7	42.2	13.0

REC = 30

HEADING = 75. DEG
RAOSHIP SPEED = 25. KNOTS
(MOIION/HAVENT)*2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
186	200	7.876E-02	1.111E+00	9.881E-01	5.836E-03	2.166E-04	1.096E-04
229	250	8.140E-02	1.100E+00	9.800E-01	3.599E-02	3.599E-04	3.096E-04
269	300	8.781E-02	1.200E+00	9.790E-01	3.536E-02	8.648E-04	1.860E-03
309	350	8.596E-02	1.366E+00	9.830E-01	7.562E-02	1.980E-03	5.034E-03
345	400	8.759E-02	1.420E+00	9.810E-01	1.670E-01	3.571E-03	8.297E-03
381	450	8.672E-02	1.420E+00	9.690E-01	3.651E-01	6.008E-03	1.209E-02
415	500	8.929E-02	1.420E+00	9.460E-01	7.695E-01	9.022E-03	1.885E-02
447	550	8.914E-02	1.380E+00	9.100E-01	1.522E+00	1.269E-02	2.601E-02
479	600	8.814E-02	1.300E+00	8.620E-01	2.728E+00	1.695E-02	2.863E-02
492	625	8.726E-02	1.300E+00	8.330E-01	3.476E+00	1.927E-02	3.131E-02
506	650	8.612E-02	1.200E+00	8.010E-01	4.253E+00	2.168E-02	3.354E-02
520	675	8.470E-02	1.250E+00	7.670E-01	5.020E+00	2.416E-02	3.524E-02
534	700	8.399E-02	1.190E+00	7.310E-01	5.632E+00	2.669E-02	3.645E-02
546	725	8.097E-02	1.120E+00	6.920E-01	6.202E+00	2.924E-02	3.730E-02
559	750	7.655E-02	1.050E+00	6.520E-01	6.554E+00	3.175E-02	3.797E-02
593	800	7.312E-02	8.930E-01	5.690E-01	6.791E+00	3.604E-02	3.932E-02
605	850	5.646E-02	7.370E-01	4.910E-01	6.501E+00	4.145E-02	4.167E-02
625	900	5.091E-02	5.760E-01	4.230E-01	5.874E+00	4.351E-02	4.308E-02
643	950	5.076E-02	4.340E-01	3.570E-01	5.046E+00	5.039E-02	4.758E-02
661	1000	4.400E-02	3.000E-01	2.920E-01	4.102E+00	5.262E-02	4.840E-02
675	1050	3.423E-02	2.040E-01	2.320E-01	3.112E+00	5.279E-02	4.688E-02
689	1100	2.668E-02	1.230E-01	1.760E-01	2.150E+00	5.669E-02	4.310E-02
701	1150	2.010E-02	6.750E-02	1.270E-01	1.294E+00	4.629E-02	3.630E-02
711	1200	1.442E-02	3.590E-02	8.662E-02	6.213E-01	3.993E-02	2.912E-02
719	1250	1.001E-02	2.190E-02	5.345E-02	1.843E-01	3.217E-02	2.088E-02
726	1300	3.297E-03	2.240E-02	2.672E-02	9.163E-02	2.392E-02	1.245E-02
734	1400	5.329E-03	3.800E-02	3.296E-03	3.196E-01	9.299E-03	1.385E-03
750	1500	2.859E-03	2.100E-02	6.311E-03	9.500E-01	1.933E-03	6.015E-03
699	1800	3.749E-05	2.630E-03	3.587E-03	4.193E-03	2.857E-03	4.717E-03
641	2000	5.116E-04	6.942E-03	4.550E-04	1.041E+00	6.453E-05	1.416E-03

PHASE (MOTION-WAVEHT)

W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
185	-101.6	89.2	.2	75.0	-6.4	49.4
229	-103.7	89.3	.1	74.5	19.5	42.3
269	-105.5	90.2	-.0	74.3	39.2	17.5
303	-107.0	90.6	-.1	73.4	50.8	10.9
346	-108.2	90.3	-.3	72.8	57.8	12.5
381	-109.3	89.7	-.4	73.7	62.2	16.7
415	-110.5	88.8	-.5	76.8	64.8	22.1
447	-111.7	88.0	-.7	82.6	66.2	28.0
478	-113.0	87.6	-1.1	91.0	66.5	34.1
492	-114.4	87.8	-1.6	96.1	66.4	37.1
509	-115.2	88.1	-1.9	101.5	65.5	39.7
520	-116.1	88.6	-2.3	107.1	64.8	42.0
534	-117.0	89.0	-2.7	112.7	63.9	43.8
546	-117.9	89.5	-3.3	117.9	62.9	45.0
559	-119.0	90.1	-4.5	122.8	60.5	45.8
583	-120.1	90.2	-5.8	131.2	57.8	46.0
605	-122.6	89.8	-7.0	137.7	53.0	45.3
625	-125.5	88.5	-8.5	142.5	51.8	44.6
643	-129.0	86.1	-10.1	145.9	49.1	44.0
662	-133.1	82.3	-11.9	148.4	44.0	43.9
675	-138.1	76.2	-13.9	150.8	39.4	44.1
683	-144.2	65.9	-15.0	150.9	34.3	44.8
701	-151.9	48.2	-18.2	149.9	28.6	45.8
711	-161.5	20.0	-20.6	145.9	22.1	47.4
713	-173.5	-10.1	-23.0	108.4	14.6	49.6
726	-172.2	-42.7	-25.7	-18.6	-6.2	52.9
734	141.3	-66.3	129.3	-27.2	-136.0	70.8
739	97.8	-158.9	113.2	-125.5	157.1	-133.2
730	-27.5	132.2	-126.7	139.5	27.4	-109.4
699	-82.9					39.5
641						

REC = 31

HEADING = 90. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/AVEHT)**2

ME	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	3.316E-03	9.752E-01	1.003E+00	5.909E-03	1.794E-05	3.708E-06
250	250	3.471E-03	9.855E-01	1.004E+00	1.634E-02	1.995E-05	4.075E-06
300	300	3.478E-03	1.203E+00	1.022E+00	3.777E-02	1.335E-05	2.571E-04
350	350	3.29E-03	1.232E+00	1.042E+00	8.853E-02	1.171E-05	2.509E-04
400	400	2.88E-03	1.181E+00	1.062E+00	2.155E-01	1.33E-05	5.494E-05
450	450	2.50E-03	1.11E+00	1.077E+00	5.780E-01	2.07E-05	9.92E-05
500	500	2.28E-03	1.044E+00	1.082E+00	1.843E+00	3.586E-05	1.54E-03
550	550	1.93E-03	8.87E-01	1.071E+00	5.033E+00	6.990E-05	7.10E-03
600	600	1.60E-03	6.23E-01	1.044E+00	3.332E+00	1.39E-04	5.60E-03
625	625	1.60E-03	5.91E-01	1.060E+00	2.204E+00	1.69E-04	3.61E-03
650	650	1.51E-03	5.74E-01	1.077E+00	1.520E+00	2.09E-04	2.52E-03
675	675	1.49E-03	5.59E-01	1.098E+00	1.101E+00	2.64E-04	1.95E-03
700	700	1.40E-03	5.45E-01	1.121E+00	8.309E-01	3.451E-04	1.63E-03
725	725	1.36E-03	5.29E-01	1.146E+00	6.469E-01	4.57E-04	1.46E-03
750	750	1.36E-03	5.13E-01	1.175E+00	5.159E-01	6.08E-04	1.37E-03
800	800	1.49E-03	4.77E-01	1.241E+00	3.455E-01	1.11E-03	1.29E-03
850	850	1.93E-03	4.39E-01	1.316E+00	2.418E-01	1.97E-03	1.27E-03
900	900	1.04E-03	3.99E-01	1.394E+00	1.738E-01	3.51E-03	1.26E-03
950	950	9.28E-04	3.58E-01	1.457E+00	1.270E-01	5.89E-03	1.26E-03
1000	1000	8.73E-04	3.13E-01	1.496E+00	1.021E-01	9.77E-03	1.17E-03
1050	1050	7.65E-04	2.74E-01	1.434E+00	8.355E-02	1.46E-02	1.17E-03
1100	1100	5.97E-04	2.41E-01	1.234E+00	6.955E-02	1.89E-02	1.23E-03
1150	1150	4.24E-04	2.12E-01	9.584E-01	5.88E-02	1.94E-02	1.39E-02
1200	1200	2.89E-04	1.86E-01	7.027E-01	5.08E-02	1.76E-02	1.51E-03
1250	1250	1.98E-04	1.64E-01	5.066E-01	4.467E-02	1.52E-02	1.67E-03
1300	1300	1.45E-04	1.45E-01	3.667E-01	4.005E-02	1.27E-02	1.86E-03
1400	1400	1.06E-04	1.02E-01	1.745E-01	3.046E-02	6.86E-03	1.88E-03
1500	1500	7.75E-05	4.84E-02	4.62E-02	2.083E-02	2.56E-03	1.93E-03
1600	1600	5.29E-05	1.97E-02	1.472E-02	1.211E-02	1.13E-03	1.58E-03
2000	2000	3.05E-05	7.41E-03	4.581E-03	6.584E-03	5.157E-04	1.13E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-131.9	89.9	.1	89.9	-106.6	69.0
250	250	-137.3	90.1	.1	91.4	-94.7	51.1
300	300	-141.9	91.7	-.2	94.9	-73.1	-61.3
350	350	-144.2	91.7	-.3	97.6	-55.0	-69.2
400	400	-145.6	91.5	-.3	101.3	-42.6	-83.8
450	450	-146.5	91.4	-.2	103.1	-35.7	141.2
500	500	-147.2	92.7	.0	104.0	-31.7	141.6
550	550	-147.7	97.7	.3	103.2	-27.8	178.3
600	600	-148.3	96.3	.5	104.0	-22.7	-137.1
625	625	-149.8	95.2	.7	107.4	-17.3	-122.5
650	650	-151.1	94.4	1.0	111.3	-12.1	-111.1
675	675	-152.3	93.9	1.3	127.6	-7.2	-101.6
700	700	-153.3	93.4	1.6	129.3	-2.6	-93.8
725	725	-154.3	92.9	2.1	123.9	1.7	-87.6
750	750	-155.1	92.4	2.6	123.1	6.0	-82.7
800	800	-156.4	91.1	3.9	122.6	14.2	-76.5
850	850	-157.3	89.5	5.8	123.1	22.7	-73.6
900	900	-157.5	87.6	8.4	124.4	32.1	-72.6
950	950	-156.8	85.4	11.9	126.4	42.7	-72.6
1000	1000	-156.0	84.8	18.5	129.4	58.4	-64.9
1050	1050	-153.5	83.8	27.0	132.9	75.7	-58.3
1100	1100	-150.9	82.4	36.1	137.1	96.2	-53.3
1150	1150	-150.1	80.6	44.0	141.9	114.5	-49.8
1200	1200	-152.5	78.3	49.8	147.1	129.8	-47.9
1250	1250	-157.7	75.5	53.4	152.9	141.8	-47.3
1300	1300	-164.7	72.2	55.5	159.1	151.0	-47.8
1400	1400	173.2	66.9	53.8	169.5	162.8	-45.0
1500	1500	145.4	51.6	44.1	175.0	167.2	-43.9
1600	1600	136.4	30.6	22.6	187.7	157.8	-50.1
2000	2000	120.9	.9	-1.5	141.0	141.1	-60.8

REC = 32 HEADING = 90. DEG SHIP SPEED = 10. KNOTS MOTION/NAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.31E-03	9.73E-01	9.98E-01	5.01E-03	6.68E-05	5.35E-06
.250	.250	3.43E-03	9.84E-01	9.98E-01	1.63E-02	8.75E-05	7.92E-06
.300	.300	3.49E-03	1.19E+00	1.01E+00	3.67E-02	9.49E-05	3.23E-04
.350	.350	3.25E-03	1.22E+00	1.03E+00	8.57E-02	1.01E-04	3.00E-04
.400	.400	2.91E-03	1.17E+00	1.05E+00	2.07E-01	1.25E-04	6.93E-05
.450	.450	2.57E-03	1.10E+00	1.07E+00	5.39E-01	1.38E-04	7.40E-05
.500	.500	2.24E-03	1.03E+00	1.07E+00	1.52E+00	2.10E-04	1.23E-03
.550	.550	1.96E-03	8.75E-01	1.06E+00	3.14E+00	3.02E-04	4.41E-03
.600	.600	1.72E-03	6.61E-01	1.03E+00	2.34E+00	4.53E-04	3.96E-03
.625	.625	1.65E-03	6.21E-01	1.05E+00	1.70E+00	5.13E-04	2.72E-03
.650	.650	1.59E-03	5.95E-01	1.07E+00	1.25E+00	5.90E-04	1.98E-03
.675	.675	1.52E-03	5.74E-01	1.09E+00	9.47E-01	6.87E-04	1.55E-03
.700	.700	1.45E-03	5.55E-01	1.11E+00	7.37E-01	8.12E-04	1.32E-03
.725	.725	1.40E-03	5.37E-01	1.12E+00	5.87E-01	9.74E-04	1.20E-03
.750	.750	1.34E-03	5.18E-01	1.17E+00	4.76E-01	1.18E-03	1.14E-03
.800	.800	1.22E-03	4.79E-01	1.23E+00	3.28E-01	1.75E-03	1.11E-03
.850	.850	1.12E-03	4.39E-01	1.31E+00	2.34E-01	2.75E-03	1.12E-03
.900	.900	1.02E-03	3.98E-01	1.39E+00	1.72E-01	4.31E-03	1.15E-03
.950	.950	9.43E-04	3.57E-01	1.45E+00	1.28E-01	6.73E-03	1.17E-03
1.000	1.000	8.91E-04	3.11E-01	1.49E+00	1.04E-01	1.01E-02	1.06E-03
1.050	1.050	7.90E-04	2.72E-01	1.42E+00	8.65E-02	1.43E-02	1.04E-03
1.100	1.100	6.30E-04	2.38E-01	1.22E+00	7.27E-02	1.74E-02	1.09E-03
1.150	1.150	4.65E-04	2.09E-01	9.45E-01	6.20E-02	1.83E-02	1.20E-03
1.200	1.200	3.25E-04	1.83E-01	8.34E-01	5.37E-02	1.76E-02	1.34E-03
1.250	1.250	2.27E-04	1.61E-01	4.84E-01	4.21E-02	1.48E-02	1.50E-03
1.300	1.300	1.64E-04	1.42E-01	3.46E-01	3.18E-02	1.24E-02	1.69E-03
1.400	1.400	1.03E-04	9.98E-02	1.63E-01	2.18E-02	6.91E-03	1.71E-03
1.600	1.600	7.42E-05	4.73E-02	4.36E-02	2.11E-02	2.67E-03	1.80E-03
1.800	1.800	5.07E-05	1.94E-02	1.41E-02	1.20E-02	1.24E-03	1.53E-03
2.000	2.000	3.04E-05	7.36E-03	4.45E-03	6.25E-03	5.36E-04	1.13E-03

PHASE (MOTION-WAVEVENT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-132.1	89.7	.2	88.8	-73.8	54.6
250	250	-137.6	90.0	.2	91.0	-64.6	40.5
300	300	-142.2	91.6	-.1	96.5	-44.1	-44.6
350	350	-146.6	91.6	-.2	100.2	-31.4	-53.8
400	400	-146.0	91.4	-.2	104.7	-23.9	-65.0
450	450	-146.9	91.5	-.1	112.8	-20.5	150.6
500	500	-147.6	92.7	.1	130.5	-19.7	152.4
550	550	-148.2	95.2	.3	167.4	-19.8	-176.3
600	600	-148.8	95.8	.4	-155.4	-18.1	-142.6
650	650	-150.3	95.4	.7	-145.6	-18.2	-129.2
700	700	-151.6	94.9	.9	-139.3	-17.3	-117.8
750	750	-152.7	94.4	1.3	-135.3	-17.4	-107.9
800	800	-153.8	94.0	1.6	-132.7	-17.4	-99.5
850	850	-154.6	93.5	2.1	-130.9	-.5	-92.7
900	900	-155.4	92.9	2.6	-129.8	4.4	-87.4
950	950	-156.7	91.6	4.0	-128.9	12.3	-80.6
1000	1000	-157.5	90.0	6.0	-129.1	20.6	-77.4
1050	1050	-157.7	88.1	8.7	-130.0	29.4	-76.4
1100	1100	-157.1	85.9	12.2	-131.8	39.2	-76.5
1150	1150	-156.6	85.2	18.9	-134.5	53.6	-68.7
1200	1200	-154.6	84.3	27.5	-137.8	70.6	-61.8
1250	1250	-152.2	82.8	36.8	-141.6	88.9	-56.5
1300	1300	-151.2	81.0	45.0	-145.9	106.4	-52.8
1350	1350	-150.6	78.6	50.9	-150.7	121.4	-50.8
1400	1400	-152.6	75.8	54.5	-155.9	133.4	-50.1
1450	1450	-155.6	72.4	55.3	-161.5	142.8	-50.6
1500	1500	-162.4	67.6	53.9	-170.4	154.5	-47.8
1550	1550	176.6	51.3	43.3	173.5	161.0	-46.8
1600	1600	147.1	30.0	21.3	156.3	154.2	-52.8
1650	1650	137.1	.2	-2.9	139.2	139.1	-62.8
1700	1700	121.2					

REC = 33 HEADING = 90. DEG SHIP SPEED = 15. KNOTS YAW

RAO (MOTION/WAVEHT)**2 PITCH ROLL HEAVE SWAY SURGE W WE

200	3.31E-03	9.71E-01	9.94E-01	5.82E-03	1.69E-04	7.44E-06	200	WE
250	3.43E-03	9.81E-01	9.93E-01	1.62E-02	2.26E-04	1.251E-05	250	WE
300	3.51E-03	1.181E+00	1.013E+00	3.55E-02	2.67E-04	4.21E-04	300	WE
350	3.28E-03	1.214E+00	1.034E+00	8.23E-02	3.13E-04	3.821E-04	350	WE
400	2.94E-03	1.170E+00	1.053E+00	1.96E-01	3.63E-04	9.93E-05	400	WE
450	2.50E-03	1.100E+00	1.067E+00	4.52E-01	4.26E-04	5.06E-05	450	WE
500	2.28E-03	1.015E+00	1.072E+00	1.55E+00	5.23E-04	9.01E-04	500	WE
550	1.99E-03	8.55E-01	1.063E+00	1.83E+00	6.83E-04	2.64E-03	550	WE
600	1.75E-03	6.91E-01	1.039E+00	1.94E+00	9.39E-04	2.63E-03	600	WE
650	1.63E-03	5.50E-01	1.055E+00	1.21E+00	1.02E-03	1.90E-03	650	WE
700	1.62E-03	5.18E-01	1.073E+00	9.50E-01	1.13E-03	1.42E-03	700	WE
750	1.56E-03	5.93E-01	1.094E+00	7.62E-01	1.26E-03	1.14E-03	750	WE
800	1.49E-03	5.69E-01	1.119E+00	5.15E-01	1.42E-03	9.94E-04	800	WE
850	1.43E-03	5.48E-01	1.144E+00	5.04E-01	1.63E-03	9.22E-04	850	WE
900	1.37E-03	5.26E-01	1.174E+00	4.92E-01	1.88E-03	9.95E-04	900	WE
950	1.25E-03	4.84E-01	1.240E+00	2.93E-01	2.58E-03	9.12E-04	950	WE
1000	1.15E-03	4.41E-01	1.315E+00	2.19E-01	3.65E-03	9.62E-04	1000	WE
1050	1.05E-03	3.99E-01	1.392E+00	1.65E-01	5.25E-03	1.01E-03	1050	WE
1100	9.62E-04	3.56E-01	1.455E+00	1.26E-01	7.55E-03	1.06E-03	1100	WE
1150	9.08E-04	3.10E-01	1.490E+00	1.00E-01	1.06E-02	9.36E-04	1150	WE
1200	8.13E-04	2.71E-01	1.432E+00	8.72E-02	1.41E-02	9.09E-04	1200	WE
1250	6.69E-04	2.37E-01	1.238E+00	7.08E-02	1.68E-02	9.51E-04	1250	WE
1300	5.05E-04	2.07E-01	9.54E-01	6.37E-02	1.76E-02	1.04E-03	1300	WE
1350	3.62E-04	1.81E-01	6.81E-01	5.54E-02	1.65E-02	1.18E-03	1350	WE
1400	2.56E-04	1.59E-01	4.73E-01	4.87E-02	1.45E-02	1.34E-03	1400	WE
1450	1.83E-04	1.39E-01	3.31E-01	4.33E-02	1.24E-02	1.52E-03	1450	WE
1500	1.14E-04	9.78E-02	1.52E-01	3.25E-02	7.12E-03	1.56E-03	1500	WE
1550	7.17E-05	4.63E-02	4.06E-02	2.10E-02	2.89E-03	1.63E-03	1550	WE
1600	4.94E-05	1.91E-02	1.74E-02	1.17E-02	1.32E-03	1.43E-03	1600	WE
2000	3.00E-05	7.31E-03	4.30E-03	6.05E-03	5.57E-04	1.13E-03	2000	WE

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-132.4	89.6	.3	87.8	-52.0	47.6
250	250	-137.9	89.9	.2	90.7	-54.4	36.1
300	300	-142.5	91.4	.0	98.3	-36.5	-32.6
350	350	-146.9	91.6	.1	103.2	-25.6	-42.2
400	400	-146.3	91.4	.1	108.8	-19.1	-52.7
450	450	-147.2	91.5	.0	118.6	-16.0	168.8
500	500	-149.1	92.7	.2	137.7	-15.5	165.4
550	550	-149.6	95.0	.3	169.0	-16.2	-170.7
600	600	-149.3	95.0	.4	162.1	-16.7	-147.1
625	625	-150.7	95.1	.6	153.7	-15.4	-135.5
650	650	-152.0	95.0	.9	147.9	-10.0	-124.7
675	675	-153.1	94.7	1.2	143.8	-6.6	-114.7
700	700	-154.1	94.3	1.6	141.0	-3.0	-105.8
725	725	-155.0	93.9	2.1	139.1	.6	-98.3
750	750	-155.7	93.4	2.7	137.7	4.2	-92.5
800	800	-156.9	92.1	4.2	136.3	11.6	-85.0
850	850	-157.6	90.5	6.2	136.1	10.4	-81.6
900	900	-157.8	88.6	9.0	136.8	27.6	-80.6
950	950	-157.4	86.4	12.6	138.1	36.6	-80.7
1000	1000	-157.2	85.8	19.3	140.7	49.5	-72.8
1050	1050	-155.6	84.7	27.6	143.7	65.0	-65.7
1100	1100	-153.5	83.3	37.3	147.1	82.0	-59.9
1150	1150	-152.2	81.4	45.9	151.0	98.6	-56.0
1200	1200	-152.0	79.0	52.2	155.3	113.2	-53.8
1250	1250	-152.9	76.1	56.0	160.0	125.2	-53.0
1300	1300	-152.6	72.6	57.7	165.1	134.7	-53.6
1350	1350	-152.8	67.1	54.6	173.4	146.5	-50.8
1400	1400	-149.9	61.1	42.9	171.0	155.2	-49.7
1450	1450	-147.9	29.5	20.0	158.8	150.7	-55.4
1500	1500	-147.6	--.4	-4.3	136.5	137.2	-64.8

REC = 34 HEADING = 90. DEG SHIP SPEED = 20. KNOTS YAW

RAO (MOTION/WAVEHT)**2 PITCH ROLL HEAVE SWAY SURGE W ME

200	3.32E-03	9.69E-01	9.92E-01	5.95E-03	3.34E-04	9.51E-06	200	ME
250	3.44E-03	9.78E-01	9.92E-01	1.62E-02	4.40E-04	1.74E-05	250	ME
300	3.55E-03	1.16E+00	1.01E+00	3.45E-02	5.30E-04	5.37E-04	300	ME
350	3.30E-03	1.19E+00	1.03E+00	7.99E-02	6.25E-04	4.87E-04	350	ME
400	2.98E-03	1.16E+00	1.05E+00	1.91E-01	7.13E-04	1.41E-04	400	ME
450	2.68E-03	1.09E+00	1.07E+00	4.71E-01	8.12E-04	2.66E-05	450	ME
500	2.31E-03	1.01E+00	1.07E+00	1.27E+00	9.59E-04	7.83E-04	500	ME
550	2.02E-03	8.73E-01	1.06E+00	1.74E+00	1.19E-03	2.36E-03	550	ME
600	1.72E-03	7.04E-01	1.04E+00	1.43E+00	1.52E-03	2.44E-03	600	ME
625	1.72E-03	6.61E-01	1.06E+00	1.14E+00	1.65E-03	1.76E-03	625	ME
650	1.65E-03	6.27E-01	1.08E+00	9.12E-01	1.70E-03	1.31E-03	650	ME
675	1.59E-03	6.00E-01	1.10E+00	7.30E-01	1.91E-03	1.05E-03	675	ME
700	1.52E-03	5.75E-01	1.12E+00	5.97E-01	2.15E-03	9.05E-04	700	ME
725	1.43E-03	5.52E-01	1.15E+00	4.93E-01	2.37E-03	8.35E-04	725	ME
750	1.45E-03	5.29E-01	1.18E+00	4.13E-01	2.64E-03	8.12E-04	750	ME
800	1.26E-03	4.85E-01	1.24E+00	2.98E-01	3.40E-03	8.35E-04	800	ME
850	1.17E-03	4.42E-01	1.32E+00	2.27E-01	4.52E-03	8.94E-04	850	ME
900	1.07E-03	3.98E-01	1.39E+00	1.69E-01	6.11E-03	9.60E-04	900	ME
950	9.70E-04	3.55E-01	1.45E+00	1.31E-01	8.33E-03	1.01E-03	950	ME
1000	9.22E-04	3.09E-01	1.49E+00	1.09E-01	1.10E-02	8.74E-04	1000	ME
1050	8.35E-04	2.69E-01	1.44E+00	9.36E-02	1.43E-02	8.31E-04	1050	ME
1100	6.94E-04	2.34E-01	1.25E+00	7.92E-02	1.64E-02	8.60E-04	1100	ME
1150	5.42E-04	2.04E-01	9.76E-01	6.49E-02	1.71E-02	9.43E-04	1150	ME
1200	3.98E-04	1.78E-01	8.93E-01	5.97E-02	1.69E-02	1.06E-03	1200	ME
1250	2.94E-04	1.56E-01	4.73E-01	5.36E-02	1.43E-02	1.22E-03	1250	ME
1300	2.04E-04	1.36E-01	3.23E-01	4.66E-02	1.25E-02	1.40E-03	1300	ME
1400	1.26E-04	9.55E-02	1.42E-01	3.47E-02	7.45E-03	1.43E-03	1400	ME
1500	6.91E-05	4.51E-02	3.74E-02	2.18E-02	3.17E-03	1.60E-03	1500	ME
1600	4.80E-05	1.86E-02	1.27E-02	1.19E-02	1.45E-03	1.46E-03	1600	ME
2000	2.98E-05	7.21E-03	4.15E-03	6.05E-03	5.70E-04	1.14E-03	2000	ME

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-132.7	89.4	.2	86.2	-55.0	44.6
250	250	-138.2	89.7	.2	89.7	-48.3	34.2
300	300	-142.8	91.3	-.0	98.4	-23.8	-23.8
350	350	-145.2	91.5	-.1	103.9	-21.8	-32.8
400	400	-145.6	91.3	-.1	109.8	-15.7	-40.0
450	450	-147.5	91.5	.0	119.7	-12.8	172.6
500	500	-148.3	92.6	.2	138.7	-12.3	168.4
550	550	-149.9	94.8	.3	163.9	-13.4	-169.1
600	600	-149.7	95.1	.3	-163.8	-14.5	-147.9
625	625	-151.1	95.3	.6	-155.8	-11.5	-137.4
650	650	-152.4	95.2	.9	-150.2	-8.5	-127.2
675	675	-153.4	95.0	1.2	-146.3	-5.3	-117.6
700	700	-154.4	94.6	1.7	-143.6	-2.0	-108.9
725	725	-155.2	94.2	2.2	-141.6	1.3	-101.4
750	750	-155.9	93.7	2.8	-140.3	4.7	-95.5
800	800	-157.0	92.4	4.4	-138.9	11.6	-88.0
850	850	-157.7	90.9	6.5	-135.6	18.8	-84.6
900	900	-158.0	89.0	9.3	-133.1	26.3	-83.7
950	950	-157.5	86.9	13.0	-140.4	34.5	-84.1
1000	1000	-157.7	86.2	19.6	-142.8	46.1	-76.6
1050	1050	-156.5	85.2	28.1	-145.6	60.0	-69.5
1100	1100	-154.7	83.7	37.6	-148.8	75.6	-63.7
1150	1150	-153.3	81.8	46.7	-152.4	91.3	-59.5
1200	1200	-153.5	79.4	53.6	-155.3	105.4	-57.2
1250	1250	-155.6	76.4	57.8	-160.5	117.3	-56.4
1300	1300	-159.3	72.9	59.7	-165.1	127.0	-56.9
1400	1400	-177.3	67.3	56.0	-172.9	138.9	-54.2
1500	1500	150.9	50.9	42.3	171.9	149.6	-53.0
1600	1600	138.9	29.0	18.7	154.7	147.3	-58.4
2000	2000	121.9	-1.2	-5.8	137.1	135.4	-66.9

REC = 35

HEADING = 90. DEG
SHIP SPEED = 25. KNOTS
RAO (MOION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.319E-03	9.674E-01	9.933E-01	5.999E-03	5.680E-04	1.118E-05
.250	.250	3.462E-03	9.758E-01	9.937E-01	1.631E-02	7.355E-04	2.182E-05
.300	.300	3.563E-03	1.146E+00	1.617E+00	3.361E-02	8.984E-04	6.512E-04
.350	.350	3.344E-03	1.182E+00	1.641E+00	7.751E-02	1.045E-03	6.017E-04
.400	.400	3.018E-03	1.115E+00	1.662E+00	1.858E-01	1.175E-03	1.940E-04
.450	.450	2.675E-03	1.093E+00	1.678E+00	4.538E-01	1.313E-03	1.089E-05
.500	.500	2.351E-03	1.017E+00	1.683E+00	1.031E+00	1.500E-03	6.567E-04
.550	.550	2.061E-03	8.787E-01	1.677E+00	1.555E+00	1.793E-03	2.034E-03
.600	.600	1.813E-03	7.167E-01	1.658E+00	1.333E+00	2.245E-03	2.207E-03
.625	.625	1.754E-03	6.725E-01	1.674E+00	1.056E+00	2.375E-03	1.598E-03
.650	.650	1.692E-03	6.375E-01	1.693E+00	8.518E-01	2.531E-03	1.180E-03
.675	.675	1.628E-03	6.082E-01	1.115E+00	6.938E-01	2.714E-03	9.411E-04
.700	.700	1.563E-03	5.820E-01	1.139E+00	5.747E-01	2.939E-03	8.056E-04
.725	.725	1.499E-03	5.575E-01	1.166E+00	4.752E-01	3.185E-03	7.415E-04
.750	.750	1.435E-03	5.340E-01	1.196E+00	4.011E-01	3.487E-03	7.222E-04
.800	.800	1.312E-03	4.883E-01	1.262E+00	2.955E-01	4.271E-03	7.531E-04
.850	.850	1.197E-03	4.432E-01	1.334E+00	2.285E-01	5.373E-03	8.222E-04
.900	.900	1.091E-03	3.986E-01	1.406E+00	1.728E-01	6.927E-03	9.003E-04
.950	.950	9.934E-04	3.545E-01	1.466E+00	1.356E-01	9.047E-03	9.704E-04
1.000	1.000	9.348E-04	3.080E-01	1.500E+00	1.144E-01	1.140E-02	8.150E-04
1.050	1.050	8.467E-04	2.680E-01	1.454E+00	9.761E-02	1.398E-02	7.587E-04
1.100	1.100	7.228E-04	2.332E-01	1.284E+00	8.411E-02	1.606E-02	7.749E-04
1.150	1.150	5.753E-04	2.030E-01	1.010E+00	7.306E-02	1.684E-02	8.468E-04
1.200	1.200	4.327E-04	1.767E-01	7.188E-01	6.395E-02	1.619E-02	9.621E-04
1.250	1.250	3.150E-04	1.539E-01	4.859E-01	5.633E-02	1.465E-02	1.113E-03
1.300	1.300	2.267E-04	1.341E-01	3.217E-01	4.934E-02	1.282E-02	1.290E-03
1.400	1.400	1.287E-04	9.341E-02	1.346E-01	3.693E-02	7.859E-03	1.327E-03
1.500	1.500	6.801E-05	4.395E-02	3.404E-02	2.262E-02	3.386E-03	1.518E-03
1.600	1.600	4.705E-05	1.823E-02	1.488E-02	1.206E-02	1.515E-03	1.438E-03
2.000	2.000	2.332E-05	7.121E-03	3.933E-03	6.039E-03	6.018E-04	1.155E-03

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-133.0	89.3	.1	84.6	-49.4	44.0
250	250	-138.6	89.6	.1	88.6	-43.2	33.8
300	300	-143.1	91.1	.1	93.2	-27.7	-17.4
350	350	-145.4	91.2	.1	104.5	-18.3	-25.9
400	400	-146.8	91.2	.0	110.8	-12.5	-31.7
450	450	-147.8	91.4	.1	121.0	-9.8	-177.0
500	500	-148.5	92.6	.2	140.1	-8.4	172.3
550	550	-149.2	94.7	.3	163.9	-10.7	-167.3
600	600	-150.0	95.0	.3	-165.7	-12.2	-148.9
625	625	-151.4	95.3	.6	-158.2	-9.5	-139.4
650	650	-152.6	95.3	.9	-152.9	-6.7	-130.0
675	675	-153.7	95.1	1.3	-149.2	-3.7	-120.9
700	700	-154.6	94.8	1.8	-146.5	.7	-112.3
725	725	-155.4	94.5	2.4	-144.6	2.4	-104.9
750	750	-156.1	94.0	3.0	-143.3	5.5	-98.9
800	800	-157.1	92.8	4.7	-141.8	12.0	-91.3
850	850	-157.8	91.2	6.9	-141.4	18.6	-87.9
900	900	-158.0	89.4	9.7	-141.8	25.5	-87.1
950	950	-157.8	87.4	13.4	-142.9	32.9	-87.6
1000	1000	-158.1	85.7	19.9	-145.3	43.3	-80.8
1050	1050	-157.3	85.6	28.2	-147.9	55.8	-73.6
1100	1100	-155.8	84.1	37.8	-150.8	68.9	-67.7
1150	1150	-154.4	82.2	47.2	-154.0	84.5	-63.4
1200	1200	-154.2	79.8	54.8	-157.6	98.1	-60.9
1250	1250	-155.5	76.8	59.7	-161.4	109.9	-60.0
1300	1300	-158.4	73.2	62.0	-165.6	113.7	-60.5
1400	1400	-174.8	67.5	58.2	-172.9	131.7	-57.9
1500	1500	152.9	50.8	42.4	172.5	144.3	-56.5
1600	1600	139.7	28.5	17.5	155.3	144.1	-61.3
2000	2000	122.3	-1.9	-7.3	137.4	133.5	-68.9

REC = 36 HEADING = 105. DEG DEG SHIP SPEED = 5. KNOTS RAO (MOTION/WAVEHT)**2 YAW

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	2.36E-02	8.844E-01	1.002E+00	5.625E-03	5.128E-04	2.045E-04	
203	2.34E-02	9.115E-01	1.003E+00	1.382E-02	1.110E-03	5.081E-04	
206	2.30E-02	1.063E+00	1.018E+00	3.963E-02	2.077E-03	1.470E-03	
209	2.25E-02	1.083E+00	1.034E+00	1.037E-01	5.691E-03	3.219E-03	
211	2.17E-02	1.011E+00	1.045E+00	2.898E-01	6.255E-03	6.152E-03	
214	2.09E-02	9.141E-01	1.045E+00	9.244E-01	1.011E-02	1.209E-02	
217	2.01E-02	7.694E-01	1.029E+00	3.044E+00	1.554E-02	2.638E-02	
220	1.92E-02	4.676E-01	9.920E-01	6.354E+00	2.263E-02	3.186E-02	
223	1.84E-02	3.897E-01	9.655E-01	3.237E+00	3.177E-02	1.598E-02	
226	1.79E-02	3.773E-01	9.714E-01	2.353E+00	3.761E-02	1.321E-02	
229	1.75E-02	3.636E-01	9.769E-01	1.791E+00	4.42E-02	1.229E-02	
232	1.70E-02	3.459E-01	9.848E-01	1.442E+00	5.188E-02	1.233E-02	
235	1.65E-02	3.252E-01	9.959E-01	1.215E+00	6.042E-02	1.292E-02	
238	1.59E-02	3.023E-01	9.959E-01	1.061E+00	6.995E-02	1.334E-02	
241	1.53E-02	2.827E-01	1.011E+00	9.522E-01	8.043E-02	1.496E-02	
244	1.47E-02	2.616E-01	1.056E+00	8.122E-01	1.037E-01	1.748E-02	
247	1.41E-02	2.416E-01	1.122E+00	7.825E-01	1.274E-01	1.999E-02	
250	1.35E-02	1.530E-01	1.197E+00	6.439E-01	1.482E-01	2.192E-02	
253	1.29E-02	1.129E-01	1.276E+00	5.241E-01	1.585E-01	2.212E-02	
256	1.23E-02	8.165E-02	1.276E+00	4.240E-01	1.447E-01	2.212E-02	
259	1.17E-02	5.509E-02	9.495E-01	3.393E-01	1.115E-01	2.186E-02	
262	1.11E-02	3.541E-02	6.015E-01	2.875E-01	5.505E-02	2.049E-02	
265	1.05E-02	2.095E-02	3.258E-01	2.073E-01	7.846E-02	2.133E-02	
268	1.00E-02	1.118E-02	1.576E-01	1.577E-01	3.922E-02	1.937E-02	
271	9.4E-03	5.196E-03	6.185E-02	1.001E-01	2.703E-02	1.598E-02	
274	8.8E-03	2.285E-03	2.262E-02	5.568E-02	1.776E-02	1.254E-02	
277	8.2E-03	1.458E-03	5.272E-03	1.106E-02	6.355E-03	6.661E-03	
280	7.6E-03	2.676E-03	2.742E-03	7.099E-03	7.998E-05	9.723E-04	
283	7.0E-03	6.105E-04	6.479E-04	7.357E-03	1.724E-04	5.650E-04	
286	6.4E-03	1.461E-04	3.314E-05	3.420E-04	1.304E-04	1.400E-04	
289	5.8E-03						
292	5.2E-03						
295	4.6E-03						
298	4.0E-03						
301	3.4E-03						
304	2.8E-03						
307	2.2E-03						
310	1.6E-03						
313	1.0E-03						
316	4.0E-04						
319	2.0E-04						
322	0.0E-04						

PHASE (MOTION-AVERT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
203	200	99.6	80.8	.1	96.2	-91.6	178.9
254	250	100.0	90.3	.1	101.7	-88.6	-174.1
305	300	99.5	91.5	.2	111.5	-86.5	-153.8
356	350	97.6	91.5	.3	120.5	-85.6	-163.2
411	400	95.2	91.6	.3	130.4	-84.7	-173.9
464	450	92.5	93.6	.3	144.5	-83.5	-178.8
517	500	89.7	96.5	.2	172.8	-81.7	-177.8
571	550	86.9	97.5	.2	132.3	-79.5	-153.8
624	600	84.7	90.3	.2	-94.1	-77.0	-147.6
652	625	83.8	89.2	.2	-83.8	-75.7	-151.0
679	650	82.9	88.5	.2	-76.3	-74.2	-155.4
705	675	82.0	87.8	.3	-70.4	-72.6	-159.7
733	700	81.0	87.1	.3	-65.5	-70.7	-163.8
761	725	80.0	86.3	.2	-61.6	-68.6	-167.5
789	750	79.1	85.4	.2	-58.3	-66.2	-171.0
815	800	77.3	83.2	.3	-53.4	-60.7	-177.5
843	850	75.7	80.6	1.8	-50.6	-54.0	176.3
869	900	74.1	77.7	5.0	-49.3	-45.8	170.4
895	950	73.3	76.4	12.7	-47.4	-44.3	167.5
921	1000	70.7	74.2	24.6	-45.9	-41.7	164.5
948	1050	68.4	70.9	38.3	-45.0	-40.9	161.3
974	1100	65.8	65.8	50.8	-44.8	-3.8	157.7
1000	1150	63.1	58.1	60.2	-43.4	.4	153.5
1026	1200	60.0	46.0	66.1	-47.2	3.3	148.5
1052	1250	56.3	32.4	65.3	-49.8	6.8	144.0
1078	1300	52.0	9.7	57.0	-53.8	10.7	139.0
1104	1350	47.5	-59.9	42.0	-71.7	19.3	126.3
1130	1400	-55.2	-119.3	-42.1	155.8	31.9	69.6
1156	1450	-128.8	-164.4	-88.9	128.1	-164.6	-18.3
1182	1500	-163.0	-94.7	-170.3	49.1	-152.8	-88.9

REC = 37

HEADING = 105. DEG SHIP SPEED = 10. KNOTS
RAO (NOTION/VAVENT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
2.05	2.00	2.27E-02	8.569E-01	9.395E-01	5.678E-03	6.873E-04	1.318E-04
2.20	2.00	2.19E-02	8.399E-01	1.000E+00	1.593E-02	1.365E-03	3.341E-04
2.35	2.00	2.13E-02	1.043E+00	1.018E+00	4.083E-02	2.342E-03	1.075E-03
2.50	2.00	2.05E-02	1.028E+00	1.036E+00	1.101E-01	3.935E-03	2.627E-03
2.65	2.00	1.96E-02	9.491E-01	1.050E+00	3.187E-01	6.451E-03	5.567E-03
2.80	2.00	1.87E-02	8.401E-01	1.052E+00	1.055E+00	1.028E-02	1.171E-02
2.95	2.00	1.77E-02	6.533E-01	1.039E+00	2.754E+00	1.565E-02	2.171E-02
3.10	2.00	1.67E-02	4.435E-01	1.004E+00	2.836E+00	2.269E-02	1.851E-02
3.25	2.00	1.53E-02	3.935E-01	1.017E+00	1.608E+00	3.192E-02	1.230E-02
3.40	2.00	1.44E-02	3.793E-01	1.031E+00	1.257E+00	3.763E-02	1.140E-02
3.55	2.00	1.498E-02	3.615E-01	1.049E+00	1.012E+00	4.414E-02	1.130E-02
3.70	2.00	1.446E-02	3.428E-01	1.072E+00	8.793E-01	5.151E-02	1.169E-02
3.85	2.00	1.391E-02	3.216E-01	1.100E+00	7.764E-01	5.975E-02	1.239E-02
4.00	2.00	1.338E-02	2.995E-01	1.136E+00	7.043E-01	6.893E-02	1.329E-02
4.15	2.00	1.271E-02	2.752E-01	1.179E+00	6.522E-01	7.877E-02	1.432E-02
4.30	2.00	1.135E-02	2.262E-01	1.299E+00	5.833E-01	9.979E-02	1.652E-02
4.45	2.00	9.73E-03	1.776E-01	1.419E+00	5.361E-01	1.191E-01	1.857E-02
4.60	2.00	7.65E-03	1.350E-01	1.574E+00	4.435E-01	1.312E-01	1.885E-02
4.75	2.00	5.58E-03	1.003E-01	1.554E+00	3.672E-01	1.213E-01	1.910E-02
4.90	2.00	4.03E-03	7.218E-02	1.212E+00	3.042E-01	9.237E-02	1.928E-02
5.05	2.00	2.99E-03	4.969E-02	7.654E-01	2.514E-01	6.386E-02	1.937E-02
5.20	2.00	2.28E-03	3.214E-02	4.120E-01	2.067E-01	4.483E-02	1.935E-02
5.35	2.00	1.70E-03	1.890E-02	1.999E-01	1.591E-01	3.225E-02	1.910E-02
5.50	2.00	1.22E-03	1.005E-02	7.822E-02	1.082E-01	2.276E-02	1.536E-02
5.65	2.00	8.51E-04	4.816E-03	2.89E-02	6.733E-02	1.539E-02	1.252E-02
5.80	2.00	5.73E-04	2.126E-03	1.105E-02	3.744E-02	9.899E-03	9.747E-03
5.95	2.00	2.36E-04	9.870E-04	3.055E-03	6.312E-03	3.345E-03	5.024E-03
6.10	2.00	7.38E-05	1.778E-04	1.074E-03	5.355E-03	8.904E-04	5.356E-04
6.25	2.00	9.95E-06	3.553E-05	5.183E-04	3.655E-03	1.015E-04	3.003E-04
6.40	2.00	5.156E-06	7.593E-05	8.618E-05	2.291E-04	8.091E-05	7.197E-05

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
0.05	20.0	99.0	89.7	.2	96.2	-82.9	-174.8
0.08	25.0	100.4	90.4	.1	103.6	-80.6	-152.8
0.12	30.0	99.8	91.5	.1	115.7	-78.4	-145.9
0.15	35.0	97.9	91.6	.3	125.9	-79.0	-159.4
0.22	40.0	95.5	91.8	.3	137.8	-77.9	-171.3
0.30	45.0	92.8	93.3	.2	155.9	-77.2	-176.5
0.34	50.0	90.0	96.6	.2	-166.4	-75.8	-167.5
0.41	55.0	87.3	94.2	.2	-121.0	-73.7	-153.1
0.49	60.0	85.6	91.4	.2	-94.1	-71.3	-152.3
0.57	625	84.8	90.6	.1	-85.5	-69.8	-154.9
0.70	650	83.9	89.9	.0	-78.7	-68.1	-158.0
0.77	675	83.0	89.2	.1	-73.1	-66.2	-161.2
0.85	700	82.2	88.3	.3	-68.5	-64.4	-164.4
0.96	725	81.3	87.3	.7	-64.7	-61.5	-167.6
0.98	750	80.5	86.2	1.2	-61.5	-58.7	-170.8
0.97	800	79.0	83.7	3.2	-57.1	-52.0	-177.1
0.93	850	77.5	80.8	7.0	-54.7	-43.9	-176.6
1.00	900	77.1	79.9	15.8	-51.9	-31.9	-173.5
1.05	950	75.0	78.3	23.4	-49.7	-18.4	-170.7
1.00	1000	70.0	75.6	45.3	-48.9	-6.8	-167.7
1.00	1050	63.3	71.4	59.4	-46.9	.2	-164.4
1.00	1100	56.3	65.3	70.1	-46.6	3.9	-150.5
1.00	1150	49.8	58.0	76.2	-47.1	6.7	-156.4
1.00	1200	43.5	50.3	76.9	-48.2	10.1	-152.7
1.00	1250	36.3	38.7	71.7	-49.8	13.8	-148.7
1.00	1300	28.2	19.4	58.6	-52.3	17.4	-144.1
1.00	1400	7.4	-49.0	13.5	-64.7	23.9	-132.3
1.00	1500	-50.8	-113.6	-45.8	-143.9	-72.7	-123.7
1.00	1600	-130.2	-162.1	-89.8	-124.6	-139.5	-16.2
1.00	1700	-153.4	-101.7	-164.3	-45.9	-169.7	-89.5

REC = 39

HEADING = 105. DEG
RAOSHIP SPEED = 15. KNOTS
(MOTION/RAVEHT)**2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.208	.200	2.119E-02	8.259E-01	9.958E-01	5.717E-03	9.061E-04	6.887E-05
.263	.250	2.055E-02	8.799E-01	1.000E+00	1.589E-02	1.654E-03	1.846E-04
.318	.300	1.975E-02	9.963E-01	1.021E+00	4.191E-02	2.645E-03	7.676E-04
.375	.350	1.873E-02	9.709E-01	1.043E+00	1.188E-01	4.211E-03	2.124E-03
.433	.400	1.775E-02	8.850E-01	1.059E+00	3.300E-01	6.678E-03	5.006E-03
.491	.450	1.673E-02	7.598E-01	1.066E+00	9.358E-01	1.045E-02	1.057E-02
.551	.500	1.571E-02	5.708E-01	1.056E+00	1.655E+00	1.582E-02	1.521E-02
.612	.550	1.473E-02	4.325E-01	1.042E+00	1.353E+00	2.285E-02	1.240E-02
.673	.600	1.385E-02	3.842E-01	1.094E+00	8.693E-01	3.178E-02	1.017E-02
.705	.625	1.335E-02	3.637E-01	1.113E+00	7.274E-01	3.728E-02	1.007E-02
.735	.650	1.285E-02	3.428E-01	1.149E+00	6.302E-01	4.353E-02	1.038E-02
.768	.675	1.232E-02	3.210E-01	1.193E+00	5.644E-01	5.055E-02	1.096E-02
.800	.700	1.176E-02	2.983E-01	1.245E+00	5.179E-01	5.835E-02	1.173E-02
.832	.725	1.117E-02	2.748E-01	1.311E+00	4.842E-01	6.685E-02	1.262E-02
.865	.750	1.055E-02	2.508E-01	1.386E+00	4.617E-01	7.583E-02	1.358E-02
.897	.800	9.164E-03	2.030E-01	1.461E+00	4.231E-01	9.388E-02	1.552E-02
.930	.850	7.412E-03	1.576E-01	1.577E+00	3.703E-01	1.084E-01	1.615E-02
.965	.900	5.507E-03	1.020E-01	1.692E+00	3.139E-01	1.062E-01	1.643E-02
1.034	.950	3.943E-03	8.064E-02	1.547E+00	2.643E-01	8.355E-02	1.680E-02
1.204	1.000	2.932E-03	6.475E-02	9.935E-01	2.284E-01	5.746E-02	1.724E-02
1.275	1.050	2.252E-03	4.462E-02	5.284E-01	1.935E-01	3.995E-02	1.774E-02
1.347	1.100	1.695E-03	2.824E-02	2.435E-01	1.531E-01	2.883E-02	1.672E-02
1.421	1.150	1.229E-03	1.656E-02	9.955E-02	1.101E-01	2.054E-02	1.459E-02
1.493	1.200	8.723E-04	9.006E-03	3.200E-02	7.435E-02	1.409E-02	1.232E-02
1.568	1.250	6.030E-04	4.443E-03	1.456E-02	4.572E-02	9.275E-03	9.958E-03
1.644	1.300	4.018E-04	1.998E-03	6.885E-03	2.585E-02	5.864E-03	7.710E-03
1.793	1.400	2.049E-04	6.073E-04	2.730E-03	2.935E-03	1.555E-03	3.473E-03
2.121	1.600	6.134E-05	1.146E-03	5.859E-04	4.332E-03	1.148E-04	3.203E-04
2.461	1.800	5.874E-06	2.353E-04	3.694E-04	2.243E-03	6.773E-05	1.838E-04
2.815	2.000	4.022E-06	4.565E-05	1.113E-06	8.262E-05	5.834E-05	3.804E-05

PHASE (MOTION-WAVEHT)

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
203	200	100.1	89.6	.2	96.7	-75.6	-166.0
263	200	100.7	90.5	.1	106.5	-73.4	-145.9
313	300	100.1	91.6	-.1	120.9	-71.0	-135.3
375	300	98.2	91.7	-.2	132.8	-71.0	-154.6
433	400	95.8	92.1	-.2	147.6	-71.4	-167.5
491	400	93.1	93.8	-.1	172.0	-71.3	-169.9
551	500	90.4	95.3	-.1	190.2	-70.3	-160.7
612	500	88.0	93.4	-.2	119.5	-68.4	-154.7
673	600	86.5	92.3	.1	119.3	-65.8	-154.9
735	655	85.7	91.7	.4	87.7	-64.2	-156.8
796	655	84.9	90.9	.7	81.4	-62.3	-159.2
857	700	84.1	90.1	1.1	76.1	-60.1	-161.8
918	700	83.3	89.1	1.7	71.7	-57.6	-164.6
979	755	82.6	88.0	2.6	68.1	-54.7	-167.5
1040	800	81.8	86.8	3.8	65.2	-51.4	-170.5
1101	800	80.5	84.1	7.7	61.2	-43.6	-176.8
1162	850	80.2	82.9	15.9	59.0	-32.5	-179.2
1223	900	79.0	81.8	29.9	55.0	-18.6	-176.4
1284	900	74.9	79.7	47.4	52.5	-5.7	-173.6
1345	1000	68.7	76.4	63.6	50.7	2.5	-170.5
1406	1000	62.1	71.4	75.9	49.5	6.4	-166.9
1467	1100	59.4	66.4	83.2	49.2	9.3	-163.4
1528	1150	50.6	61.3	85.5	49.3	12.8	-160.1
1589	1200	44.1	54.3	82.7	49.7	16.4	-156.7
1650	1250	36.8	44.0	73.6	50.5	19.7	-153.0
1711	1300	28.8	27.3	58.6	51.5	22.9	-148.8
1772	1350	-1.8	-45.1	19.6	64.6	12.9	-135.7
1833	1400	-48.2	-111.9	-52.3	137.8	-5.6	-72.3
1894	1450	-137.1	-161.2	-93.1	114.1	164.3	-18.1
1955	1500	143.1	94.0	169.8	45.2	-167.5	-90.6

REC = 39

HEADING = 105. DEG
RAO (MOTION/WAVEPT)**2

SHIP SPEED = 20. KNOTS

WE	H	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.211	.200	2.009E-02	7.949E-01	9.953E-01	5.746E-03	1.169E-03	2.827E-05
.267	.250	1.028E-02	8.531E-01	1.003E-01	1.586E-02	1.975E-03	1.026E-04
.324	.300	1.811E-02	9.450E-01	1.022E+00	4.335E-02	2.970E-03	5.547E-04
.383	.350	1.720E-02	9.430E-01	1.051E+00	1.259E-01	4.493E-03	1.678E-03
.443	.400	1.606E-02	8.282E-01	1.072E+00	3.720E-01	6.893E-03	4.435E-03
.505	.450	1.498E-02	6.804E-01	1.085E+00	9.779E-01	1.060E-02	9.570E-03
.568	.500	1.344E-02	5.074E-01	1.086E+00	1.364E+00	1.598E-02	1.195E-02
.632	.550	1.200E-02	4.006E-01	1.092E+00	9.531E-01	2.275E-02	9.291E-03
.693	.600	1.088E-02	3.950E-01	1.163E+00	6.272E-01	3.128E-02	8.317E-03
.731	.625	1.158E-02	3.422E-01	1.215E+00	5.369E-01	3.650E-02	8.519E-03
.765	.650	1.107E-02	3.189E-01	1.266E+00	4.763E-01	4.240E-02	8.997E-03
.793	.675	1.053E-02	2.970E-01	1.335E+00	4.348E-01	4.898E-02	9.664E-03
.833	.700	9.977E-03	2.743E-01	1.416E+00	4.068E-01	5.622E-02	1.046E-02
.863	.725	9.591E-03	2.535E-01	1.512E+00	3.875E-01	6.399E-02	1.133E-02
.903	.750	8.722E-03	2.281E-01	1.619E+00	3.740E-01	7.200E-02	1.224E-02
.974	.800	7.345E-03	1.889E-01	1.861E+00	3.385E-01	8.705E-02	1.345E-02
1.046	.850	5.631E-03	1.411E-01	2.082E+00	2.847E-01	9.316E-02	1.372E-02
1.120	.900	4.054E-03	1.091E-01	1.912E+00	2.437E-01	7.985E-02	1.418E-02
1.195	.950	2.963E-03	8.095E-02	1.318E+00	2.110E-01	5.647E-02	1.481E-02
1.272	1.000	2.258E-03	5.858E-02	7.326E-01	1.859E-01	3.865E-02	1.563E-02
1.350	1.050	1.712E-03	3.944E-02	3.342E-01	1.528E-01	2.777E-02	1.516E-02
1.423	1.100	1.259E-03	2.482E-02	1.364E-01	1.152E-01	1.939E-02	1.362E-02
1.503	1.150	9.069E-04	1.478E-02	5.302E-02	8.210E-02	1.368E-02	1.183E-02
1.591	1.200	5.403E-04	8.224E-03	2.320E-02	5.470E-02	9.085E-03	9.931E-03
1.674	1.250	4.332E-04	4.041E-03	8.222E-03	3.296E-02	5.467E-03	7.904E-03
1.753	1.300	2.952E-04	1.575E-03	4.756E-03	1.647E-02	2.780E-03	5.741E-03
1.832	1.400	1.792E-04	3.755E-04	2.051E-03	1.356E-03	9.360E-04	2.440E-03
2.295	1.600	5.101E-05	7.546E-04	3.844E-04	2.747E-03	1.214E-04	2.034E-04
2.681	1.800	3.303E-06	1.811E-04	2.533E-04	1.807E-03	5.319E-05	1.236E-04
3.088	2.000	2.351E-06	3.677E-05	1.553E-06	1.397E-05	5.187E-05	1.959E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
211	200	100.3	89.4	.2	96.8	-69.1	-150.5
267	250	101.1	90.6	.0	108.9	-66.6	-116.8
323	300	101.5	91.6	.0	124.8	-64.0	-121.7
383	350	99.5	91.8	-.2	137.5	-64.3	-149.5
443	400	96.1	92.5	-.1	154.0	-65.4	-164.2
505	450	93.4	94.4	-.0	177.8	-65.8	-164.8
568	500	90.7	95.0	-.0	199.2	-65.2	-155.8
632	550	88.8	93.6	.2	199.8	-63.4	-152.1
698	600	87.4	92.6	.8	191.1	-60.7	-153.8
731	625	86.7	92.0	1.2	84.2	-58.9	-155.9
765	650	85.9	91.2	1.9	78.3	-56.8	-159.5
793	675	85.1	90.3	2.7	73.7	-54.4	-161.2
833	700	84.4	89.3	3.8	69.7	-51.5	-164.1
863	725	83.7	88.1	5.4	66.5	-48.3	-167.2
893	750	83.1	86.8	7.5	64.0	-44.6	-170.3
924	800	82.4	84.9	14.2	60.2	-35.1	-175.7
950	850	82.7	84.3	27.3	53.6	-21.6	-178.7
974	900	79.7	82.9	45.5	43.6	-7.5	178.6
1045	950	74.3	80.3	63.7	31.1	2.8	175.8
1120	1000	68.0	76.3	78.3	19.2	8.1	172.5
1192	1050	62.7	72.4	87.6	13.3	11.4	169.2
1272	1100	57.4	68.7	91.9	7.9	15.1	166.3
1350	1150	51.4	63.9	91.4	4.6	18.8	163.3
1429	1200	44.8	57.4	85.5	4.4	22.1	160.2
1509	1250	35.7	48.2	70.9	4.8	23.5	156.6
1591	1300	20.6	33.3	50.2	49.8	18.3	152.1
1674	1350	-8.8	-41.5	23.5	60.2	.5	140.6
1753	1400	-46.2	-112.3	-58.2	137.8	-8	70.2
1832	1450	-131.9	-160.9	-98.4	103.9	147.7	-23.0
2295	1500	153.6	74.4	92.3	14.4	-159.0	-96.7
2681	1550						
3083	1600						
	1650						
	1700						
	1750						
	1800						
	1850						
	1900						
	1950						
	2000						

REC = 40 HEADING = 105. DEG DEG SHIP SPEED = 25. KNOTS MOTION/WAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
24	200	1.90E-02	7.56E-01	9.97E-01	5.75E-03	1.47E-03	1.09E-05
27	230	1.80E-02	8.17E-01	1.01E+00	1.87E-02	2.31E-03	1.01E-04
31	300	1.99E-02	8.90E-01	1.04E+00	4.46E-02	3.29E-03	4.45E-04
32	350	1.57E-02	8.53E-01	1.07E+00	1.34E-01	4.75E-03	1.34E-03
40	400	1.45E-02	7.63E-01	1.09E+00	3.95E-01	7.00E-03	3.91E-03
50	450	1.34E-02	6.20E-01	1.10E+00	9.06E-01	1.07E-02	8.12E-03
53	500	1.24E-02	4.57E-01	1.10E+00	9.94E-01	1.61E-02	9.00E-03
55	550	1.15E-02	3.82E-01	1.16E+00	6.51E-01	2.24E-02	7.14E-03
63	600	1.05E-02	3.38E-01	1.25E+00	4.51E-01	3.07E-02	6.99E-03
72	650	1.00E-02	3.17E-01	1.32E+00	3.97E-01	3.51E-02	7.38E-03
75	700	9.55E-03	2.96E-01	1.39E+00	3.61E-01	4.02E-02	7.95E-03
80	750	9.03E-03	2.74E-01	1.49E+00	3.36E-01	4.69E-02	8.66E-03
86	800	8.49E-03	2.52E-01	1.59E+00	3.22E-01	5.35E-02	9.45E-03
94	850	7.91E-03	2.29E-01	1.71E+00	3.12E-01	6.00E-02	1.03E-02
94	900	7.34E-03	2.07E-01	1.84E+00	2.95E-01	6.78E-02	1.14E-02
101	950	5.85E-03	1.62E-01	2.16E+00	2.58E-01	7.86E-02	1.44E-02
105	1000	4.32E-03	1.26E-01	2.39E+00	2.20E-01	7.83E-02	1.18E-02
105	1050	3.10E-03	9.74E-02	1.74E+00	1.92E-01	5.82E-02	1.24E-02
127	1100	2.31E-03	7.31E-02	1.03E+00	1.71E-01	4.01E-02	1.33E-02
134	1150	1.76E-03	5.16E-02	4.90E-01	1.47E-01	2.82E-02	1.39E-02
135	1200	1.30E-03	3.43E-02	2.07E-01	1.15E-01	2.07E-02	1.25E-02
151	1250	5.49E-04	2.18E-02	7.87E-02	8.67E-02	1.48E-02	1.11E-02
153	1300	5.84E-04	1.31E-02	2.97E-02	5.12E-02	9.33E-03	9.69E-03
163	1350	4.61E-04	7.16E-03	1.14E-02	3.98E-02	5.31E-03	7.95E-03
161	1400	3.07E-04	3.24E-03	5.91E-03	2.26E-02	2.65E-03	6.04E-03
187	1450	2.26E-04	1.20E-03	3.92E-03	1.07E-02	1.43E-03	4.30E-03
206	1500	1.56E-04	2.30E-04	1.59E-03	5.42E-04	7.15E-04	1.71E-03
209	1550	4.14E-05	5.80E-05	2.18E-04	2.98E-05	1.15E-04	1.30E-04
231	1600	3.13E-06	8.04E-06	2.01E-05	1.11E-05	7.51E-05	1.03E-04
330	2000	2.37E-06	4.64E-06	3.00E-06	1.86E-06	4.47E-05	1.36E-05

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
214	200	100.6	89.3	.1	96.9	-63.0	-117.0
271	250	101.5	95.6	-0	111.7	-60.0	-78.9
331	300	100.8	91.6	-1	129.2	-57.2	-105.5
392	350	98.9	91.9	-1	143.2	-57.9	-143.4
454	400	96.4	92.8	0	162.3	-59.6	-153.8
519	450	93.7	94.7	.2	-166.3	-60.8	-153.9
585	500	91.0	94.3	.2	-130.5	-60.6	-152.7
653	550	89.6	92.8	.7	-105.2	-59.9	-150.5
722	600	89.3	92.0	1.8	-88.5	-56.0	-153.0
788	625	87.5	92.3	2.6	-82.2	-54.1	-155.2
794	650	86.8	91.5	3.6	-76.9	-51.8	-157.8
870	675	86.1	90.5	4.9	-72.5	-49.1	-160.6
866	700	85.5	89.4	6.7	-68.9	-46.0	-163.6
904	725	84.8	88.2	9.0	-66.1	-42.4	-169.8
941	750	84.2	86.8	11.9	-63.9	-38.3	-173.7
1017	800	84.6	86.4	22.7	-59.9	-25.6	-175.5
1095	850	83.6	85.5	39.8	-56.3	-12.2	-178.2
1175	900	79.7	83.7	59.8	-53.2	.6	-179.9
1257	950	74.0	80.6	77.3	-50.6	8.2	-177.9
1340	1000	58.7	77.1	89.4	-49.0	12.5	-174.6
1423	1050	63.9	74.2	96.2	-48.2	16.8	-171.8
1511	1100	53.4	70.8	98.2	-47.5	21.0	-169.1
1593	1150	52.2	66.2	95.1	-46.8	24.5	-166.4
1683	1200	43.0	60.3	82.7	-45.8	25.5	-163.2
1761	1250	28.5	52.4	62.0	-47.9	20.2	-159.2
1874	1300	12.9	39.1	45.9	-49.3	10.4	-154.9
2069	1400	-13.6	-41.0	25.4	-63.8	-10.0	-142.8
2463	1500	-46.2	-115.7	-64.7	135.4	-8	-65.7
2801	1600	-153.8	-158.9	-94.3	101.7	146.9	-25.7
3360	2000	158.0	75.8	71.1	23.9	-155.4	-103.0

REC = 41 HEADING = 120. DEG SHIP SPEED = 5. KNOTS RAO (NOTION/VAVENT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	1.047E-01	6.903E-01	9.990E-01	4.709E-03	1.593E-03	6.231E-04
.253	.250	1.001E-01	7.208E-01	9.91E-01	1.392E-02	3.636E-03	1.613E-03
.312	.300	9.530E-02	8.293E-01	1.001E+00	4.052E-02	7.140E-03	4.391E-03
.365	.350	9.012E-02	8.008E-01	9.998E-01	1.247E-01	1.298E-02	9.184E-03
.421	.400	8.448E-02	7.153E-01	9.835E-01	4.09E-01	2.201E-02	1.673E-02
.477	.450	7.835E-02	6.009E-01	9.450E-01	1.512E+00	3.496E-02	2.996E-02
.533	.500	7.162E-02	4.040E-01	8.790E-01	5.470E+00	5.188E-02	4.953E-02
.590	.550	6.424E-02	2.054E-01	7.866E-01	6.335E+00	7.152E-02	3.240E-02
.647	.600	5.648E-02	1.837E-01	7.162E-01	3.092E+00	9.664E-02	2.014E-02
.705	.655	5.240E-02	1.714E-01	6.834E-01	2.352E+00	1.110E-01	1.964E-02
.764	.700	4.821E-02	1.544E-01	6.507E-01	1.874E+00	1.261E-01	2.038E-02
.824	.750	4.394E-02	1.344E-01	6.193E-01	1.547E+00	1.419E-01	2.160E-02
.884	.800	3.962E-02	1.131E-01	5.902E-01	1.305E+00	1.567E-01	2.292E-02
.945	.850	3.528E-02	9.166E-02	5.633E-01	1.114E+00	1.710E-01	2.409E-02
1.006	.900	3.097E-02	7.135E-02	5.409E-01	9.544E-01	1.837E-01	2.492E-02
1.068	.950	2.264E-02	3.718E-02	5.07E-01	6.885E-01	1.994E-01	2.512E-02
1.131	1.000	1.512E-02	1.445E-02	4.586E-01	4.682E-01	1.951E-01	2.304E-02
1.195	1.050	8.539E-03	4.163E-03	3.832E-01	2.555E-01	1.688E-01	1.838E-02
1.259	1.100	4.045E-03	8.794E-04	2.471E-01	1.215E-01	1.182E-01	1.340E-02
1.324	1.150	1.648E-03	1.595E-03	9.47E-02	5.225E-02	6.208E-02	6.738E-03
1.389	1.200	5.945E-04	3.810E-03	2.795E-02	2.955E-02	2.461E-02	4.926E-03
1.455	1.250	1.838E-04	5.677E-03	2.928E-02	3.391E-02	6.567E-03	2.329E-03
1.522	1.300	4.575E-05	5.828E-03	3.339E-02	4.724E-02	6.053E-04	9.832E-04
1.587	1.350	1.333E-05	4.237E-03	3.288E-02	5.355E-02	2.564E-04	6.926E-04
1.654	1.400	1.545E-05	2.405E-03	2.272E-02	4.681E-02	1.387E-03	9.226E-04
1.722	1.450	1.792E-05	1.123E-03	1.276E-02	3.075E-02	2.100E-03	1.065E-03
1.790	1.500	3.881E-06	3.992E-04	2.746E-03	3.905E-02	1.251E-03	9.651E-04
1.858	1.550	4.408E-06	1.015E-04	9.206E-05	7.882E-04	1.411E-04	1.224E-04
1.926	1.600	1.184E-06	2.018E-05	6.071E-05	9.344E-04	1.247E-05	3.369E-05
2.000	2.000	1.1979E-07	1.893E-06	4.832E-06	1.404E-04	4.848E-06	7.037E-06

PHASE (MOTION-AVENT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
205	200	92.5	89.7	.1	102.0	-89.7	-178.8
258	250	92.2	90.4	.1	111.3	-87.5	-173.9
312	300	91.1	91.3	-2	125.2	-86.0	-166.7
366	350	89.4	91.4	-3	136.7	-84.8	-173.1
421	400	87.4	91.9	-4	148.7	-83.4	-179.5
477	450	85.3	94.4	-5	160.1	-81.4	-177.9
533	500	83.0	100.4	-7	157.6	-78.9	-172.2
590	550	80.7	93.3	-1.2	105.4	-75.8	-157.4
647	600	79.1	86.9	-2.1	177.2	-72.4	-155.5
675	655	78.3	85.9	-2.7	63.5	-70.4	-171.5
705	681	77.5	85.2	-3.4	64.1	-68.2	-176.8
735	705	76.7	84.5	-4.3	60.3	-65.8	-178.5
764	720	75.9	83.3	-5.3	57.8	-63.1	-174.2
794	725	75.2	82.7	-6.4	55.3	-60.1	-170.1
824	750	74.4	82.7	-7.4	55.7	-57.7	-166.1
884	800	73.1	82.4	-8.6	52.2	-49.0	-158.0
943	850	71.8	85.6	-7.6	62.1	-39.8	-149.4
1003	900	70.8	97.6	-1.6	66.5	-27.0	-144.4
1069	950	67.6	142.2	8.2	75.7	-12.2	-138.9
1131	1000	60.2	155.4	13.2	94.6	1.8	-131.6
1195	1050	47.9	140.3	-6.8	128.6	13.3	-120.8
1259	1100	29.3	139.1	-40.7	162.2	27.5	-102.5
1324	1150	-1.2	143.8	-48.6	171.0	41.1	59.0
1389	1200	-59.3	152.0	-43.6	163.8	-174.5	21.3
1455	1250	-114.2	164.5	-35.5	155.2	-152.4	-12.9
1522	1300	-142.1	175.1	-24.6	148.1	-143.5	-33.3
1587	1350	-178.4	101.9	15.2	127.7	-128.1	-67.9
1653	1400	1.8	-16.4	-179.5	120.3	51.4	145.5
1719	1450	158.6	162.4	-32.6	125.1	145.6	-18.0
1785	1500	-29.3	-8.0	137.2	-85.7	-84.5	152.5

REC = 42

HEADING = 120. DEG
SHIP SPEED = 10. KNOTS

RAO (MOTION/NAVEH) **2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	9.41E-02	6.50E-01	9.96E-01	4.82E-03	1.86E-03	4.28E-04
211	250	8.83E-02	7.01E-01	9.95E-01	4.45E-02	3.92E-03	1.17E-03
224	300	8.27E-02	7.74E-01	1.00E+00	4.63E-02	7.45E-03	3.44E-03
232	350	7.54E-02	7.28E-01	1.00E+00	1.48E-01	1.20E-02	7.69E-03
244	400	5.94E-02	6.32E-01	9.98E-01	5.13E-01	2.21E-02	1.48E-02
253	450	6.30E-02	4.93E-01	9.65E-01	1.80E+00	3.50E-02	2.66E-02
266	500	5.65E-02	2.93E-01	9.06E-01	3.30E+00	5.18E-02	2.84E-02
279	550	5.01E-02	2.13E-01	8.51E-01	2.16E+00	7.26E-02	1.83E-02
293	600	4.38E-02	1.81E-01	8.25E-01	1.35E+00	9.97E-02	1.67E-02
306	625	3.94E-02	1.61E-01	8.16E-01	1.13E+00	1.45E-01	1.74E-02
320	650	3.97E-02	1.41E-01	8.12E-01	9.73E-01	1.31E-01	1.84E-02
335	675	3.27E-02	1.19E-01	8.14E-01	8.54E-01	1.47E-01	1.95E-02
349	700	2.89E-02	9.83E-02	8.23E-01	7.55E-01	1.67E-01	2.05E-02
363	725	2.56E-02	7.80E-02	8.36E-01	6.72E-01	1.78E-01	2.13E-02
378	750	2.16E-02	5.96E-02	8.52E-01	5.34E-01	1.90E-01	2.17E-02
393	800	1.41E-02	3.05E-02	8.68E-01	4.33E-01	2.00E-01	2.18E-02
408	850	8.67E-03	1.31E-02	8.06E-01	2.68E-01	1.83E-01	1.79E-02
423	900	4.82E-03	3.90E-03	5.10E-01	1.51E-01	1.24E-01	1.45E-02
438	950	2.03E-03	4.43E-04	1.82E-01	7.64E-02	6.86E-02	1.10E-02
453	1000	9.04E-04	7.41E-04	3.52E-02	3.45E-02	3.03E-02	7.59E-03
468	1050	3.48E-04	2.45E-03	8.21E-03	1.57E-02	1.46E-02	4.19E-03
483	1100	9.68E-05	3.39E-03	1.64E-02	5.15E-02	3.07E-03	1.71E-03
498	1150	1.63E-05	3.29E-03	2.12E-02	2.20E-02	3.84E-04	6.03E-04
513	1200	4.83E-06	2.45E-03	1.88E-02	2.57E-02	2.09E-04	3.83E-04
528	1250	1.20E-05	1.43E-03	1.27E-02	2.26E-02	6.09E-04	5.09E-04
543	1300	9.23E-06	5.75E-04	4.60E-03	1.45E-02	8.67E-04	5.68E-04
558	1350	2.83E-07	1.16E-04	8.56E-05	1.31E-03	3.81E-04	2.41E-04
573	1400	1.70E-06	1.87E-05	5.72E-05	3.29E-04	2.89E-05	4.90E-05
588	1450	3.41E-07	1.92E-05	1.15E-05	3.05E-04	2.43E-06	1.22E-05
603	1500	1.22E-07	5.00E-07	8.85E-06	4.70E-04	9.30E-06	7.24E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAH
.211	.200	92.7	89.6	.2	103.0	-84.1	-172.5
.255	.200	92.4	90.6	.1	115.3	-82.2	-164.0
.300	.200	91.3	91.4	.2	130.9	-80.8	-161.8
.382	.300	89.6	91.6	.3	143.7	-79.9	-170.3
.442	.400	87.6	92.5	.4	158.3	-78.6	-176.5
.503	.400	85.4	95.8	.6	173.3	-76.7	-174.7
.565	.500	83.2	96.5	.9	187.4	-73.9	-162.2
.629	.500	81.5	90.8	1.5	201.8	-70.4	-161.8
.695	.600	80.1	88.5	2.2	216.3	-66.2	-169.9
.724	.650	79.5	87.6	2.7	231.7	-63.7	-174.2
.761	.650	78.8	86.7	3.1	247.7	-60.8	-178.3
.793	.675	78.2	85.8	3.4	263.7	-57.5	-177.6
.829	.700	77.7	84.8	3.4	279.3	-53.9	-173.6
.863	.725	77.2	83.9	3.9	295.6	-49.7	-169.5
.893	.750	76.8	83.1	4.7	311.7	-45.2	-165.4
.968	.800	76.2	83.1	6.0	327.3	-33.9	-158.1
1.040	.850	75.7	85.6	17.6	343.1	-18.1	-154.1
1.113	.900	72.0	91.1	36.7	359.2	-1.3	-149.5
1.167	.950	64.3	120.6	53.3	375.3	12.3	-143.7
1.263	1.000	54.1	140.5	55.1	391.3	22.6	-135.7
1.339	1.050	42.3	129.9	5.0	407.1	32.6	-125.2
1.418	1.100	27.2	131.8	25.6	423.8	45.9	-109.6
1.497	1.150	-2.1	136.4	27.7	440.9	76.1	-79.4
1.578	1.200	-90.0	143.4	23.0	457.1	176.6	31.1
1.660	1.250	-134.0	153.9	15.2	473.0	149.9	-4.2
1.744	1.300	-138.2	172.1	13.0	489.4	-128.5	-25.8
1.914	1.400	91.9	97.9	-47.7	505.5	-109.5	-60.4
2.272	1.600	2.2	-49.9	160.0	521.5	47.6	144.6
2.691	1.800	166.4	174.1	-87.4	537.5	87.4	-41.4
3.051	2.000	-19.1	-37.5	107.3	553.2	-75.8	131.1

REC = 43 HEADING = 120. DEG SHIP SPEED = 15. KNOTS MOTION/HAVENT**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
216	200	8.23E-02	6.08E-01	9.94E-01	4.94E-03	2.16E-03	2.56E-04
275	250	7.73E-02	6.77E-01	9.99E-01	1.52E-02	4.31E-03	7.69E-04
335	300	7.10E-02	7.15E-01	1.01E+00	5.06E-02	7.71E-03	2.63E-03
398	350	6.44E-02	6.55E-01	1.02E+00	1.70E-01	1.33E-02	6.43E-03
463	400	5.81E-02	5.47E-01	1.02E+00	5.56E-01	2.21E-02	1.28E-02
530	450	5.19E-02	3.92E-01	9.95E-01	1.30E+00	3.49E-02	1.89E-02
593	500	4.57E-02	2.58E-01	9.47E-01	1.32E+00	5.14E-02	1.63E-02
663	550	3.97E-02	2.10E-01	9.54E-01	9.07E-01	7.34E-02	1.40E-02
732	600	3.36E-02	1.68E-01	9.84E-01	6.79E-01	1.01E-01	1.48E-02
799	625	2.60E-02	1.47E-01	1.11E+00	6.09E-01	1.16E-01	1.58E-02
815	650	2.52E-02	1.25E-01	1.05E+00	5.55E-01	1.32E-01	1.67E-02
854	675	2.44E-02	1.04E-01	1.10E+00	5.09E-01	1.49E-01	1.76E-02
893	700	2.36E-02	8.43E-02	1.16E+00	4.68E-01	1.65E-01	1.84E-02
932	725	1.31E-02	6.59E-02	1.22E+00	4.27E-01	1.75E-01	1.83E-02
972	750	1.15E-02	5.01E-02	1.28E+00	3.70E-01	1.86E-01	1.84E-02
1052	800	9.75E-03	2.65E-02	1.30E+00	2.52E-01	1.81E-01	1.67E-02
1124	850	4.88E-03	1.16E-02	9.91E-01	1.63E-01	1.29E-01	1.45E-02
1213	900	2.54E-03	3.35E-03	3.55E-01	9.89E-02	7.48E-02	1.23E-02
1305	950	1.68E-03	2.02E-04	8.48E-02	5.41E-02	3.58E-02	9.73E-03
1394	1000	5.45E-04	3.26E-04	8.77E-03	1.94E-02	1.60E-02	5.82E-03
1484	1050	2.64E-04	1.26E-03	6.18E-03	6.57E-03	5.81E-03	2.93E-03
1576	1100	5.50E-05	1.92E-03	1.22E-02	6.62E-03	1.55E-03	1.13E-03
1671	1150	7.33E-06	1.93E-03	1.30E-02	1.03E-02	1.69E-04	3.62E-04
1767	1200	7.96E-06	1.38E-03	7.56E-03	1.36E-02	1.02E-04	2.06E-04
1865	1250	3.44E-06	7.20E-04	3.15E-03	1.17E-02	3.54E-04	2.73E-04
1965	1300	3.37E-06	2.45E-04	9.03E-04	7.01E-03	4.14E-04	2.98E-04
2171	1350	1.30E-07	4.89E-05	1.25E-04	3.38E-04	1.66E-04	1.04E-04
2403	1400	1.89E-06	1.05E-05	2.19E-05	1.23E-04	1.50E-05	2.67E-05
2675	1450	7.51E-07	4.93E-06	2.36E-05	6.10E-04	1.80E-05	1.17E-05
2976	1500	1.31E-07	4.85E-06	9.50E-06	4.47E-05	1.28E-05	3.21E-06

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	92.8	89.5	.2	105.0	-78.9	-164.6
.275	.250	92.6	90.8	.0	121.3	-76.9	-152.0
.335	.300	91.5	91.6	-.2	138.7	-75.6	-156.0
.393	.350	89.7	91.9	-.3	154.1	-75.1	-166.7
.463	.400	87.7	93.3	-.4	175.8	-74.1	-171.3
.530	.450	85.6	95.2	-.6	-149.2	-72.1	-166.6
.593	.500	83.5	92.8	-1.0	-112.9	-69.0	-163.3
.669	.550	82.4	91.5	-1.3	-88.3	-65.2	-165.3
.742	.600	81.2	89.8	-1.5	-74.3	-60.0	-171.5
.773	.625	80.7	88.9	-1.3	-69.8	-56.8	-175.0
.816	.650	80.3	87.8	-.8	-66.7	-53.1	-178.8
.854	.675	79.9	86.7	.2	-64.8	-48.9	-177.3
.893	.700	79.6	85.6	2.1	-63.8	-44.2	-173.3
.932	.725	79.3	84.6	5.0	-63.7	-38.9	-169.1
.972	.750	79.5	84.5	9.7	-63.3	-32.3	-166.2
1.052	.800	79.5	85.2	26.5	-62.0	-15.2	-162.5
1.134	.850	76.1	85.5	50.0	-62.3	2.7	-158.5
1.213	.900	69.1	86.2	71.6	-64.6	16.2	-153.6
1.305	.950	60.7	99.9	84.6	-70.6	26.0	-147.0
1.394	1.000	52.4	-131.9	66.7	-86.0	36.1	-140.6
1.484	1.050	42.6	-124.1	-3.5	-122.7	47.0	-131.9
1.576	1.100	30.1	-125.5	-17.5	-172.0	61.4	-117.8
1.671	1.150	-4.2	-129.8	-16.2	163.7	92.7	89.0
1.767	1.200	-66.3	-137.0	-13.7	152.0	-128.4	36.1
1.865	1.250	-86.0	-146.4	-15.3	144.9	-109.9	-2.2
1.965	1.300	-90.5	-161.3	-26.2	139.3	-103.8	-22.6
2.171	1.400	135.5	95.4	-83.2	118.4	-119.6	-59.2
2.603	1.600	-21.0	-90.2	124.3	-69.1	-10.6	132.4
3.076	1.800	149.9	143.5	-64.0	91.1	116.3	-46.6
3.575	2.000	-35.0	-62.3	108.3	-99.0	-68.6	141.4

REC = 44

HEADING = 120. DEG
SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	7.723E-02	5.638E-01	9.951E-01	5.048E-03	2.483E-03	1.369E-04
.233	.230	6.921E-02	6.335E-01	1.307E+00	1.621E-02	4.619E-03	4.863E-04
.347	.300	6.186E-02	6.551E-01	1.029E+00	5.737E-02	7.907E-03	1.979E-03
.414	.350	5.508E-02	5.882E-01	1.046E+00	2.041E-01	1.335E-02	5.378E-03
.434	.400	4.879E-02	4.732E-01	1.050E+00	6.466E-01	2.203E-02	1.111E-02
.555	.450	4.287E-02	3.213E-01	1.035E+00	1.121E+00	3.460E-02	1.393E-02
.631	.500	3.728E-02	2.319E-01	1.032E+00	8.613E-01	5.113E-02	1.122E-02
.703	.550	3.187E-02	1.905E-01	1.088E+00	6.319E-01	7.301E-02	1.092E-02
.789	.600	2.651E-02	1.503E-01	1.194E+00	4.793E-01	1.006E-01	1.241E-02
.830	.625	2.382E-02	1.297E-01	1.372E+00	4.417E-01	1.160E-01	1.336E-02
.872	.650	2.114E-02	1.095E-01	1.367E+00	4.110E-01	1.316E-01	1.428E-02
.914	.675	1.846E-02	9.005E-02	1.472E+00	3.836E-01	1.464E-01	1.506E-02
.957	.700	1.576E-02	7.194E-02	1.593E+00	3.511E-01	1.589E-01	1.547E-02
1.001	.725	1.286E-02	5.615E-02	1.722E+00	2.982E-01	1.681E-01	1.503E-02
1.045	.750	1.012E-02	4.295E-02	1.788E+00	2.523E-01	1.675E-01	1.458E-02
1.135	.800	5.708E-03	2.299E-02	1.406E+00	1.778E-01	1.296E-01	1.358E-02
1.229	.850	3.130E-03	9.976E-03	6.453E-01	1.213E-01	7.697E-02	1.242E-02
1.325	.900	1.682E-03	2.750E-03	1.837E-01	7.511E-02	4.195E-02	1.052E-02
1.424	.950	8.253E-04	2.732E-04	2.741E-02	3.344E-02	2.098E-02	7.098E-03
1.525	1.000	3.621E-04	1.011E-04	2.522E-03	1.030E-02	9.066E-03	4.213E-03
1.629	1.050	1.304E-04	6.761E-04	5.481E-03	2.942E-03	3.234E-03	2.109E-03
1.735	1.100	3.932E-05	1.131E-03	7.448E-03	3.793E-03	4.497E-04	7.624E-04
1.844	1.150	2.113E-05	1.131E-03	5.280E-03	7.194E-03	1.601E-03	2.019E-04
1.955	1.200	1.795E-05	8.003E-04	2.604E-03	8.559E-03	1.698E-04	1.061E-04
2.070	1.250	1.028E-05	3.975E-04	1.117E-03	7.132E-03	2.079E-04	1.586E-04
2.187	1.300	3.500E-06	1.261E-04	5.407E-04	3.931E-03	1.458E-04	1.719E-04
2.429	1.400	4.905E-07	2.576E-05	1.246E-04	1.063E-04	9.106E-05	4.673E-05
2.943	1.500	2.950E-06	1.038E-05	3.395E-05	2.145E-04	1.666E-05	2.030E-05
3.502	1.600	8.328E-07	1.360E-05	2.550E-05	1.344E-04	2.350E-05	5.511E-06
4.101	2.000	1.552E-07	1.809E-06	8.660E-06	5.404E-05	1.138E-05	2.906E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	93.0	89.4	.1	106.4	-73.8	-153.5
.231	.250	92.8	91.0	-.1	126.5	-71.6	-135.9
.283	.300	91.7	91.7	-.2	144.5	-70.6	-149.7
.347	.350	89.9	92.2	-.3	151.4	-70.5	-163.3
.414	.400	87.9	94.1	-.4	-172.1	-69.7	-166.5
.484	.450	85.8	94.8	-.5	-133.1	-67.8	-160.8
.555	.500	84.3	92.9	-.7	-100.7	-64.6	-160.1
.631	.550	83.3	91.7	-.5	-80.7	-60.0	-164.4
.703	.600	82.4	89.9	.5	-59.5	-53.8	-171.2
.789	.625	82.0	88.8	1.7	-66.2	-49.9	-175.1
.872	.650	81.7	87.6	3.6	-64.0	-45.4	-179.1
.914	.675	81.6	86.4	6.5	-62.9	-40.3	-176.7
.957	.700	81.6	85.5	10.8	-62.3	-34.3	-172.9
1.001	.725	82.1	85.8	17.9	-60.9	-26.3	-171.1
1.045	.750	82.4	85.9	27.7	-59.8	-17.2	-169.4
1.135	.800	80.2	85.4	53.1	-58.4	1.7	-165.8
1.229	.850	74.3	83.5	78.2	-58.4	16.3	-161.6
1.325	.900	67.3	80.5	95.8	-60.8	26.6	-156.3
1.424	.950	63.4	86.0	99.7	-67.1	36.9	-151.5
1.525	1.000	52.6	-126.1	52.1	-81.1	47.0	-145.8
1.629	1.050	44.1	-117.5	-5.6	-120.0	57.6	-138.2
1.735	1.100	16.2	-121.4	-8.2	-178.8	60.6	-124.0
1.844	1.150	-25.2	-126.7	-7.7	158.2	-36.7	93.3
1.956	1.200	-51.6	-132.5	-10.4	148.1	-84.1	35.7
2.070	1.250	-67.9	-142.2	-21.9	141.6	-88.8	-3.6
2.187	1.300	-90.4	-161.5	-40.7	135.7	-102.0	-23.6
2.429	1.400	157.2	88.9	-75.5	98.0	-137.5	-64.6
2.943	1.600	-22.1	-98.9	126.3	-74.0	-26.1	123.7
3.502	1.800	143.3	131.4	-62.1	86.1	120.9	-58.7
4.101	2.000	-29.7	-31.8	110.3	-103.1	-65.2	129.7

REC = 45

HEADING = 120. DEG
RAOSHIP SPEED = 25. KNOTS
(MOTION/WAVEMT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	7.013E-02	5.198E-01	9.989E-01	5.135E-03	2.814E-03	6.967E-05
.291	.250	6.162E-02	5.897E-01	1.018E+00	1.720E-02	4.877E-03	3.444E-04
.353	.300	5.405E-02	5.949E-01	1.048E+00	6.555E-02	7.996E-03	1.512E-03
.431	.350	4.731E-02	5.229E-01	1.072E+00	2.336E-01	1.321E-02	4.519E-03
.505	.400	4.125E-02	4.014E-01	1.086E+00	6.315E-01	2.164E-02	8.990E-03
.583	.450	3.572E-02	2.704E-01	1.081E+00	7.702E-01	3.406E-02	9.641E-03
.664	.500	3.087E-02	2.117E-01	1.133E+00	5.343E-01	5.015E-02	8.293E-03
.743	.550	2.580E-02	1.727E-01	1.251E+00	4.033E-01	7.149E-02	9.032E-03
.825	.600	2.105E-02	1.336E-01	1.448E+00	3.435E-01	9.815E-02	1.071E-02
.881	.625	1.873E-02	1.141E-01	1.581E+00	3.244E-01	1.127E-01	1.151E-02
.927	.650	1.635E-02	9.529E-02	1.728E+00	3.077E-01	1.269E-01	1.241E-02
.974	.675	1.388E-02	7.728E-02	1.909E+00	2.767E-01	1.398E-01	1.261E-02
1.022	.700	1.133E-02	6.150E-02	2.100E+00	2.381E-01	1.482E-01	1.239E-02
1.071	.725	8.912E-03	4.818E-02	2.170E+00	2.050E-01	1.466E-01	1.218E-02
1.119	.750	6.790E-03	3.696E-02	2.304E+00	1.764E-01	1.327E-01	1.198E-02
1.220	.800	3.839E-03	1.975E-02	1.115E+00	1.300E-01	8.659E-02	1.160E-02
1.324	.850	2.165E-03	8.321E-03	3.793E-01	9.064E-02	5.008E-02	1.067E-02
1.432	.900	1.150E-03	2.500E-03	7.831E-02	4.954E-02	2.717E-02	7.914E-03
1.542	.950	5.680E-04	3.355E-04	8.726E-03	2.076E-02	1.301E-02	5.311E-03
1.656	1.000	2.497E-04	2.116E-05	1.536E-03	6.120E-03	5.313E-03	3.127E-03
1.774	1.050	8.885E-05	3.729E-04	4.162E-03	1.490E-03	1.005E-03	1.402E-03
1.894	1.100	4.250E-05	6.723E-04	4.002E-03	2.653E-03	9.241E-05	4.650E-04
2.018	1.150	3.122E-05	6.858E-04	2.431E-03	4.990E-03	1.035E-04	1.073E-04
2.145	1.200	1.913E-05	4.854E-04	1.295E-03	5.976E-03	1.249E-04	6.607E-05
2.275	1.250	8.734E-06	2.305E-04	6.909E-04	4.691E-03	7.945E-05	1.069E-04
2.403	1.300	2.353E-06	6.539E-05	3.843E-04	2.398E-03	4.480E-05	1.076E-04
2.535	1.400	7.361E-07	1.654E-05	1.027E-04	1.032E-04	4.313E-05	2.816E-05
3.280	1.600	3.164E-06	4.940E-06	4.091E-05	1.036E-04	3.014E-05	1.614E-05
3.927	1.800	7.282E-07	6.604E-06	1.986E-05	1.074E-04	2.167E-05	5.773E-06
4.626	2.000	8.775E-08	4.236E-06	6.361E-06	2.998E-05	8.618E-06	1.613E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	93.1	89.3	.1	108.1	-68.7	-136.4
.251	.250	93.1	91.1	-1	132.4	-66.1	-114.8
.353	.300	91.9	91.9	-2	151.5	-65.5	-142.5
.430	.350	90.1	92.7	-2	171.1	-66.0	-158.9
.505	.400	88.1	94.6	-2	-157.5	-65.7	-160.5
.583	.450	86.0	93.7	-2	-130.4	-63.8	-157.8
.664	.500	85.0	93.2	.1	-93.1	-60.3	-158.6
.743	.550	84.1	92.0	1.1	-76.6	-55.1	-163.8
.835	.600	83.5	90.0	3.8	-67.6	-47.8	-171.1
.881	.625	83.3	89.8	6.3	-65.1	-43.3	-175.1
.927	.650	83.2	87.5	9.9	-63.8	-38.0	-179.4
.974	.675	83.6	87.1	15.5	-62.4	-31.2	177.6
1.022	.700	84.3	87.4	24.1	-60.7	-22.8	175.8
1.071	.725	84.5	87.4	35.4	-59.3	-13.2	174.1
1.119	.750	83.8	87.2	49.1	-58.1	-3.3	172.5
1.223	.800	79.4	85.4	77.1	-56.6	13.3	168.7
1.324	.850	73.4	82.0	98.9	-57.0	24.9	164.2
1.432	.900	67.4	80.7	111.0	-59.8	35.7	160.1
1.542	.950	60.5	80.7	106.8	-65.1	45.9	155.9
1.655	1.000	52.8	-118.6	28.6	-77.5	55.4	150.8
1.774	1.050	29.1	-116.4	3.1	-129.5	56.2	142.2
1.894	1.100	-3.9	-120.2	.5	171.3	24.0	128.2
2.018	1.150	-32.0	-124.8	-2.6	151.9	-51.9	96.0
2.145	1.200	-50.3	-132.9	-13.5	143.2	-62.2	28.8
2.275	1.250	-68.2	-144.1	-30.2	136.8	-76.2	-7.0
2.403	1.300	-92.4	-164.6	-47.9	129.4	-102.4	-26.9
2.585	1.400	117.4	65.3	-69.6	70.5	-156.8	-74.7
3.280	1.500	-16.3	-110.3	133.5	-90.8	-23.0	115.8
3.927	1.600	145.0	115.1	-62.1	84.3	124.1	-53.9
4.626	2.000	-39.2	-63.0	110.4	-118.9	-65.8	122.5

REC = 46

HEADING = 135. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)*2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.207	.200	2.147E-01	4.478E-01	9.940E-01	3.302E-03	2.991E-03	8.199E-04
.262	.250	2.014E-01	4.708E-01	9.833E-01	1.049E-02	6.921E-03	2.169E-03
.317	.300	1.874E-01	5.242E-01	9.753E-01	3.501E-02	1.376E-02	5.733E-03
.373	.350	1.723E-01	4.869E-01	9.513E-01	1.209E-01	2.493E-02	1.147E-02
.431	.400	1.557E-01	4.129E-01	9.006E-01	4.342E-01	4.156E-02	1.995E-02
.488	.450	1.376E-01	3.174E-01	8.172E-01	1.723E+00	6.382E-02	3.361E-02
.545	.500	1.178E-01	1.597E-01	7.014E-01	5.489E+00	8.978E-02	4.344E-02
.605	.550	9.689E-02	7.541E-02	5.680E-01	3.882E+00	1.154E-01	2.057E-02
.667	.600	7.580E-02	6.154E-02	4.584E-01	1.839E+00	1.439E-01	1.562E-02
.697	.625	6.543E-02	5.066E-02	4.060E-01	1.346E+00	1.561E-01	1.581E-02
.723	.650	5.542E-02	3.883E-02	3.574E-01	1.013E+00	1.659E-01	1.620E-02
.761	.675	4.591E-02	2.753E-02	3.139E-01	7.704E-01	1.720E-01	1.637E-02
.791	.700	3.708E-02	1.782E-02	2.753E-01	5.834E-01	1.736E-01	1.611E-02
.823	.725	2.905E-02	1.032E-02	2.433E-01	4.347E-01	1.697E-01	1.531E-02
.854	.750	2.186E-02	5.292E-03	2.138E-01	3.159E-01	1.597E-01	1.398E-02
.919	.800	1.100E-02	2.012E-03	1.574E-01	1.544E-01	1.223E-01	1.010E-02
.984	.850	4.191E-03	3.661E-03	9.950E-02	6.919E-02	7.207E-02	5.630E-03
1.051	.900	1.054E-03	5.315E-03	5.643E-02	4.777E-02	2.618E-02	2.305E-03
1.117	.950	1.405E-04	5.546E-03	6.278E-02	5.778E-02	2.819E-03	6.448E-04
1.185	1.000	2.534E-05	4.248E-03	7.992E-02	6.521E-02	7.304E-04	3.733E-04
1.253	1.050	5.071E-06	2.360E-03	5.897E-02	5.619E-02	5.053E-03	8.336E-04
1.324	1.100	4.700E-06	9.633E-04	2.572E-02	3.336E-02	6.652E-03	1.112E-03
1.395	1.150	2.594E-06	4.476E-04	7.143E-03	1.046E-02	4.445E-03	8.449E-04
1.467	1.200	4.123E-06	4.183E-04	1.465E-03	1.103E-03	1.690E-03	4.273E-04
1.540	1.250	1.001E-05	3.388E-04	1.044E-03	1.310E-03	2.652E-04	2.070E-04
1.614	1.300	1.678E-05	1.739E-04	1.098E-03	2.252E-03	1.182E-04	1.869E-04
1.683	1.400	4.463E-06	1.229E-04	1.053E-04	1.330E-05	2.718E-04	8.505E-05
1.753	1.500	1.524E-07	4.584E-05	2.895E-05	1.553E-05	1.364E-04	1.244E-05
2.075	1.600	1.233E-06	1.211E-05	2.352E-06	3.204E-05	1.670E-05	2.488E-06
2.402	1.800	1.921E-07	2.514E-06	2.567E-06	2.546E-05	9.995E-07	1.601E-06
2.743	2.000						

PHASE (MOTION-AVEHT)

WE	W	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.207	.200	90.6	89.7	.2	106.7	-88.8	-178.6
.262	.250	90.0	90.4	.1	118.6	-86.8	-174.7
.317	.300	88.8	91.2	-.2	134.0	-85.2	-171.8
.373	.350	87.2	91.3	-.4	145.5	-83.6	-177.7
.430	.400	85.3	92.4	-.5	157.2	-81.6	-176.9
.483	.450	83.3	96.6	-.8	176.1	-79.0	-176.1
.545	.500	81.2	104.2	-1.5	-141.2	-75.7	-170.3
.606	.550	79.3	90.7	-3.0	-93.2	-71.7	-165.4
.667	.600	78.0	85.9	-5.4	-71.8	-67.1	-179.5
.723	.625	77.3	85.7	-7.2	-66.8	-64.5	-174.2
.760	.650	76.7	86.0	-9.4	-63.9	-61.5	-168.7
.791	.675	76.1	87.0	-12.1	-62.9	-59.2	-163.6
.823	.700	75.6	89.2	-15.1	-63.6	-54.5	-158.8
.854	.725	75.2	93.8	-18.3	-65.8	-50.5	-153.8
.893	.750	74.8	103.5	-21.5	-70.0	-46.0	-148.7
.919	.800	74.2	154.9	-27.3	-85.8	-35.8	-137.2
.984	.850	73.8	-165.7	-33.9	-113.4	-22.8	-126.4
1.050	.900	72.0	-155.2	-50.6	-151.1	-6.6	-113.2
1.117	.950	64.8	-153.5	-73.3	-178.8	9.0	83.3
1.186	1.000	32.7	-158.2	-73.5	166.3	-155.4	17.0
1.255	1.050	-117.4	-171.0	-64.2	156.5	-145.9	-25.3
1.324	1.100	-152.3	161.3	-51.6	147.2	-135.6	-47.4
1.395	1.150	144.5	113.7	-30.8	134.8	-125.4	-67.1
1.467	1.200	70.6	69.6	10.5	95.2	-113.0	-93.7
1.540	1.250	26.1	38.3	63.9	-3.2	-85.2	-137.7
1.614	1.300	-2.2	2.8	78.2	-24.4	8.7	-174.6
1.763	1.400	-44.1	-102.8	20.6	-159.5	65.7	106.1
2.075	1.600	72.1	56.0	58.3	145.7	-111.3	-94.9
2.402	1.800	-175.9	-158.3	-82.4	110.5	78.3	3.5
2.743	2.000	-28.0	-78.8	151.7	-86.2	2.3	123.7

REC = 47 HEADING = 135. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	1.859E-01	4.121E-01	9.917E-01	3.439E-03	3.329E-03	5.695E-04
.273	.250	1.690E-01	4.520E-01	9.869E-01	1.154E-02	7.308E-03	1.631E-03
.333	.300	1.526E-01	4.765E-01	9.849E-01	4.219E-02	1.407E-02	4.546E-03
.395	.350	1.363E-01	4.263E-01	9.668E-01	1.570E-01	2.518E-02	9.509E-03
.459	.400	1.199E-01	3.454E-01	9.234E-01	6.123E-01	4.190E-02	1.736E-02
.525	.450	1.038E-01	2.242E-01	8.489E-01	2.117E+00	6.434E-02	2.651E-02
.593	.500	8.618E-02	1.112E-01	7.446E-01	2.332E+00	8.995E-02	1.825E-02
.662	.550	6.929E-02	9.473E-02	6.584E-01	1.265E+00	1.215E-01	1.311E-02
.734	.600	5.283E-02	5.958E-02	6.033E-01	7.713E-01	1.545E-01	1.346E-02
.770	.625	4.496E-02	4.635E-02	5.775E-01	6.245E-01	1.693E-01	1.390E-02
.807	.650	3.745E-02	3.394E-02	5.570E-01	5.089E-01	1.813E-01	1.415E-02
.844	.675	3.044E-02	2.314E-02	5.399E-01	4.125E-01	1.893E-01	1.406E-02
.882	.700	2.401E-02	1.443E-02	5.216E-01	3.293E-01	1.907E-01	1.354E-02
.920	.725	1.826E-02	8.055E-03	4.944E-01	2.568E-01	1.849E-01	1.258E-02
.959	.750	1.321E-02	4.058E-03	4.543E-01	1.900E-01	1.717E-01	1.113E-02
1.033	.800	5.553E-03	1.135E-03	3.174E-01	8.055E-02	1.241E-01	7.482E-03
1.118	.850	1.746E-03	1.554E-03	1.032E-01	3.124E-02	5.847E-02	4.271E-03
1.201	.900	4.098E-04	2.906E-03	1.845E-02	1.935E-02	1.617E-02	1.919E-03
1.285	.950	5.494E-05	3.645E-03	3.235E-02	2.476E-02	1.673E-03	6.433E-04
1.371	1.000	8.354E-08	2.689E-03	4.125E-02	2.922E-02	3.223E-04	2.938E-04
1.459	1.050	9.568E-06	1.343E-03	2.235E-02	2.542E-02	1.812E-03	4.631E-04
1.549	1.100	1.249E-05	4.776E-04	1.476E-02	1.413E-02	2.317E-03	5.522E-04
1.641	1.150	5.997E-06	1.875E-04	5.955E-03	4.274E-03	1.632E-03	3.973E-04
1.735	1.200	1.830E-06	1.508E-04	6.736E-04	2.159E-04	6.012E-04	1.645E-04
1.831	1.250	8.986E-06	1.147E-04	8.028E-05	4.401E-04	6.772E-05	6.530E-05
1.928	1.300	1.029E-05	5.580E-05	1.098E-04	7.371E-04	7.137E-05	6.455E-05
2.128	1.400	9.581E-08	3.838E-05	1.113E-05	7.942E-05	1.289E-04	2.121E-05
2.550	1.600	6.483E-07	1.105E-05	4.736E-06	1.167E-05	1.514E-05	5.333E-06
3.004	1.800	3.618E-08	7.233E-06	2.059E-06	6.902E-05	1.462E-05	2.105E-06
3.486	2.000	2.350E-07	9.583E-07	7.858E-06	1.930E-05	7.501E-06	1.352E-06

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	90.7	89.5	.2	108.4	-84.4	-172.6
.273	.250	90.1	90.7	.0	124.1	-82.4	-165.8
.333	.300	88.9	91.3	-.2	140.2	-80.9	-167.7
.355	.350	87.2	91.6	-.4	153.3	-79.5	-175.2
.459	.400	85.3	93.6	-.7	170.8	-77.4	-179.3
.525	.450	83.4	98.5	-1.2	-154.2	-74.3	-172.9
.593	.500	81.5	93.8	-2.1	-106.5	-73.4	-164.7
.662	.550	80.3	88.8	-3.5	-78.9	-65.6	-172.6
.734	.600	79.3	87.1	-5.8	-66.9	-59.5	176.9
.770	.625	78.9	86.7	-6.9	-64.2	-55.9	172.0
.827	.650	78.6	86.7	-7.8	-63.1	-51.7	167.1
.844	.675	78.4	87.3	-8.2	-63.5	-47.1	162.2
.882	.700	78.3	89.2	-7.8	-65.3	-41.8	157.2
.920	.725	78.2	93.7	-6.3	-68.6	-36.0	151.9
.959	.750	78.3	103.3	-3.4	-72.9	-29.3	147.0
1.038	.800	79.9	145.7	9.1	-82.5	-11.1	141.1
1.113	.850	75.8	-161.9	21.6	-105.0	8.9	133.1
1.201	.900	60.0	-145.3	-11.1	-143.7	26.8	119.6
1.285	.950	55.2	-143.7	-46.1	-174.6	48.8	90.4
1.371	1.000	50.6	-150.0	-39.9	166.8	-170.9	30.0
1.459	1.050	-154.3	-162.1	-28.5	156.2	-138.4	-14.8
1.543	1.100	-169.6	174.1	-15.6	149.0	-126.3	-36.6
1.641	1.150	170.5	128.5	1.3	142.3	-117.3	-54.5
1.735	1.200	68.7	78.3	24.7	115.5	-100.8	-82.1
1.830	1.250	33.3	42.4	134.4	-22.9	-65.7	-133.6
1.928	1.300	20.7	1.5	-175.9	-34.5	50.1	174.2
2.128	1.400	-30.6	-109.1	-52.6	134.1	81.6	103.7
2.550	1.500	88.3	39.5	-74.5	-.9	-121.1	-118.2
3.004	1.800	-159.2	-163.5	-120.0	57.0	53.9	-22.5
3.486	2.000	-51.5	-21.1	120.6	-105.1	-56.6	97.2

REC = 48 HEADING = 135. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/NAVEHT)**2

WE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	1.619E-01	3.755E-01	9.910E-01	3.607E-03	3.678E-03
.222	1.429E-01	4.243E-01	9.935E-01	1.293E-02	7.624E-03
.250	1.255E-01	4.273E-01	9.989E-01	5.005E-02	1.425E-02
.300	1.093E-01	3.682E-01	9.894E-01	1.939E-01	2.523E-02
.350	9.392E-02	2.761E-01	9.567E-01	6.844E-01	4.188E-02
.400	7.904E-02	1.627E-01	8.958E-01	1.193E+00	6.415E-02
.450	6.467E-02	1.088E-01	8.417E-01	8.375E-01	9.163E-02
.500	5.085E-02	8.054E-02	8.259E-01	5.545E-01	1.259E-01
.550	3.778E-02	5.263E-02	8.434E-01	4.026E-01	1.618E-01
.600	3.163E-02	3.972E-02	8.657E-01	3.464E-01	1.776E-01
.625	2.582E-02	2.831E-02	8.905E-01	2.961E-01	1.895E-01
.650	2.043E-02	1.881E-02	9.043E-01	2.493E-01	1.951E-01
.675	1.537E-02	1.175E-02	9.110E-01	1.952E-01	1.943E-01
.700	1.084E-02	6.794E-03	8.852E-01	1.426E-01	1.835E-01
.725	7.172E-03	3.521E-03	7.639E-01	1.010E-01	1.580E-01
.750	2.702E-03	6.284E-04	3.079E-01	4.525E-02	8.380E-02
.800	8.842E-04	7.940E-04	3.919E-02	1.809E-02	3.101E-02
.900	2.205E-04	1.833E-03	6.555E-03	9.235E-03	8.045E-03
.950	2.793E-05	2.002E-03	2.254E-02	1.122E-02	9.512E-04
1.000	1.164E-06	1.461E-03	2.418E-02	1.395E-02	2.279E-04
1.500	9.625E-06	7.348E-04	1.578E-02	1.105E-02	8.561E-04
1.774	4.255E-06	2.225E-04	4.450E-03	6.103E-03	1.083E-03
1.887	1.915E-07	5.816E-05	4.720E-04	1.470E-03	6.717E-04
2.002	4.870E-06	4.684E-05	6.822E-05	1.087E-05	2.074E-04
2.123	5.957E-06	4.237E-05	1.374E-04	3.221E-04	1.305E-05
2.241	4.117E-06	1.314E-05	8.011E-05	4.035E-04	6.120E-06
2.491	7.551E-07	2.591E-05	7.149E-06	9.853E-05	2.261E-05
3.035	5.591E-07	1.203E-05	9.209E-06	1.833E-06	2.847E-05
3.605	4.945E-08	1.532E-06	7.532E-06	2.852E-05	2.236E-05
4.228	2.837E-07	7.274E-07	7.201E-06	1.604E-05	8.704E-06

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.222	.200	90.8	89.4	.2	111.2	-80.0	-165.6
.265	.250	92.3	91.0	-.1	131.5	-78.0	-156.2
.353	.300	99.0	91.5	-.3	148.7	-75.7	-163.4
.418	.350	87.3	92.2	-.5	165.3	-75.4	-171.7
.483	.400	85.5	94.7	-.8	-167.7	-73.2	-172.6
.563	.450	83.6	95.2	-1.4	-126.0	-89.7	-166.0
.639	.500	82.3	91.7	-2.2	-93.1	-65.2	-167.8
.718	.550	81.4	89.8	-3.2	-75.4	-59.3	-175.2
.800	.600	80.9	88.2	-3.5	-57.6	-51.4	175.9
.843	.625	80.8	87.6	-2.8	-66.2	-46.5	171.2
.885	.650	80.8	87.4	-.9	-56.3	-41.0	166.2
.929	.675	80.9	88.0	2.3	-67.6	-34.8	161.0
.973	.700	81.4	90.3	7.8	-68.8	-27.0	157.4
1.018	.725	82.1	94.1	16.6	-69.7	-17.3	155.0
1.063	.750	82.2	100.1	28.3	-71.4	-6.5	152.5
1.156	.800	78.6	135.3	55.1	-79.3	14.6	146.5
1.252	.850	71.1	-151.4	69.2	-98.5	31.4	137.7
1.351	.900	63.2	-136.2	-11.5	-140.0	47.6	124.3
1.453	.950	50.0	-137.0	-27.9	-179.9	75.2	99.0
1.557	1.000	15.4	-142.3	-20.7	161.9	-172.5	40.5
1.664	1.050	-14.5	-152.9	-11.7	152.9	-131.0	-6.0
1.774	1.100	-159.9	-176.1	-5.5	145.9	-108.0	-29.7
1.887	1.150	109.1	133.6	-7.9	139.6	-95.1	-49.5
2.002	1.200	42.7	73.6	-133.5	115.6	-82.2	-79.4
2.120	1.250	35.6	40.3	-154.9	-43.2	-89.3	-142.7
2.241	1.300	22.6	.5	-173.2	-52.0	95.0	165.3
2.491	1.400	-37.2	-129.9	73.8	146.2	60.7	85.8
3.025	1.600	136.5	34.8	-13.0	139.4	-146.2	-135.1
3.555	1.800	104.2	-174.9	-121.4	129.4	58.7	-17.4
4.228	2.000	-51.7	-99.6	119.5	-124.8	-56.2	104.8

REC = 49 HEADING = 135. DEG RAO SHIP SPEED = 20. KNOTS
(MOTION/AVEHT)**2

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.233	.200	1.416E-01	3.391E-01	9.927E-01	3.732E-03	4.028E-03	2.046E-04
.296	.250	1.217E-01	3.911E-01	1.005E+00	1.475E-02	7.849E-03	7.717E-04
.367	.300	1.043E-01	3.796E-01	1.188E+00	6.247E-02	1.426E-02	2.767E-03
.441	.350	8.874E-02	3.159E-01	1.020E+00	2.458E-01	2.500E-02	6.649E-03
.519	.400	7.464E-02	2.176E-01	1.000E+00	7.079E-01	4.145E-02	1.091E-02
.600	.450	5.158E-02	1.299E-01	9.570E-01	7.435E-01	6.330E-02	9.273E-03
.685	.500	4.943E-02	9.832E-02	9.799E-01	4.795E-01	9.236E-02	8.108E-03
.775	.550	3.907E-02	7.105E-02	1.051E+00	3.495E-01	1.277E-01	8.932E-03
.867	.600	2.743E-02	4.478E-02	1.188E+00	2.731E-01	1.640E-01	9.931E-03
.915	.650	2.253E-02	3.317E-02	1.568E+00	2.411E-01	1.785E-01	1.017E-02
.964	.700	1.322E-02	1.563E-02	1.422E+00	1.583E-01	1.900E-01	9.212E-03
1.013	.750	9.271E-03	9.882E-03	1.358E+00	1.210E-01	1.759E-01	8.429E-03
1.064	.800	6.167E-03	5.711E-03	1.113E+00	9.051E-02	1.452E-01	7.617E-03
1.115	.850	3.979E-03	2.864E-03	7.312E-01	6.606E-02	1.072E-01	6.782E-03
1.168	.900	1.577E-03	2.868E-04	1.341E-01	3.233E-02	4.750E-02	5.077E-03
1.275	.950	5.344E-04	3.995E-04	7.943E-03	1.065E-02	1.711E-02	2.758E-03
1.365	.990	1.356E-04	9.805E-04	6.824E-03	4.275E-03	4.305E-03	1.076E-03
1.521	.930	1.711E-05	1.146E-03	1.563E-02	5.724E-03	5.244E-04	2.794E-04
1.620	1.000	1.595E-07	8.198E-04	1.121E-02	7.702E-03	1.629E-04	8.527E-05
1.742	1.080	3.199E-06	3.730E-04	4.278E-03	6.336E-03	6.153E-04	1.267E-04
1.868	1.160	1.147E-06	9.710E-05	8.242E-04	2.969E-03	6.205E-04	1.329E-04
1.998	1.240	4.787E-08	2.286E-05	1.551E-04	5.597E-04	2.618E-04	7.653E-05
2.132	1.320	1.021E-06	3.020E-05	6.500E-05	1.121E-05	8.477E-05	2.248E-05
2.269	1.400	1.958E-06	2.187E-05	3.541E-05	2.936E-04	2.486E-05	1.254E-05
2.411	1.480	2.280E-06	9.337E-06	8.895E-06	2.692E-04	8.367E-06	1.953E-05
2.555	1.560	1.514E-06	2.358E-05	9.338E-06	6.778E-05	1.949E-05	6.493E-06
2.855	1.640	5.026E-07	5.212E-06	1.560E-05	3.373E-05	3.721E-05	4.074E-06
3.500	1.800	1.413E-07	1.923E-06	6.761E-06	1.222E-05	2.005E-05	1.475E-06
4.206	1.800	1.992E-07	2.406E-07	4.966E-06	1.741E-05	6.189E-06	7.524E-07

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
230	1200	90.9	89.3	.1	113.7	-75.8	-156.6
296	250	90.5	91.2	-.1	138.3	-73.5	-144.8
367	300	89.2	91.7	-.3	156.0	-72.5	-158.9
441	350	87.5	92.9	-.5	176.1	-71.4	-167.9
519	400	85.6	95.3	-.8	198.8	-69.1	-165.7
600	450	83.9	92.9	-1.3	219.0	-65.4	-163.5
686	500	83.2	91.6	-1.6	242.8	-60.1	-167.3
773	550	82.6	89.9	-1.2	270.0	-52.8	-175.5
867	600	82.6	88.0	1.9	302.2	-42.9	175.1
915	635	82.7	87.3	5.4	338.0	-36.7	170.1
964	650	83.2	87.5	10.9	385.4	-29.3	165.7
1013	675	84.2	88.9	20.2	434.8	-19.5	163.7
1064	700	84.7	90.6	33.0	485.3	-8.4	161.6
1115	725	84.1	92.8	48.5	537.7	3.2	159.3
1163	750	82.0	96.2	64.6	591.3	13.8	156.7
1275	800	75.5	126.4	91.3	646.7	30.7	150.0
1386	850	69.0	143.0	90.9	733.5	45.8	142.1
1501	900	63.7	150.3	-16.2	835.5	62.7	131.1
1621	950	68.2	130.4	-17.2	941.1	92.0	108.2
1742	1000	-100.2	137.0	-9.4	1058.3	-130.1	46.3
1863	1050	-104.2	148.4	-5.2	1176.9	-99.7	-4.7
1993	1100	-86.4	158.6	-10.3	1295.5	-88.7	-27.7
2132	1150	58.1	126.9	-44.8	1423.3	-92.2	-49.7
2269	1200	62.9	63.4	-98.0	1547.7	-109.7	-86.0
2410	1250	42.3	35.7	-137.8	1673.4	-141.3	-160.0
2555	1300	11.9	25.5	-174.0	1800.7	178.7	152.1
2695	1400	-35.7	-135.6	109.1	1928.1	30.6	70.1
2850	1500	154.5	34.4	-2.6	2056.3	-146.3	-148.3
2996	1600	90.3	163.9	-116.4	2184.8	62.0	-10.1
4206	1800	-46.3	-51.1	116.8	2313.2	-55.2	89.8

REC = 50 HEADING = 135. DEG SHIP SPEED = 25. KNOTS

RAO (MOTION/NAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.237	.200	1.244E-01	3.043E-01	9.975E-01	3.933E-03	4.360E-03	1.140E-04
.308	.250	1.042E-01	3.554E-01	1.020E+00	1.696E-02	7.959E-03	5.427E-04
.384	.300	8.726E-02	3.347E-01	1.044E+00	7.654E-02	1.407E-02	2.187E-03
.464	.350	7.275E-02	2.677E-01	1.057E+00	2.990E-01	2.448E-02	5.583E-03
.549	.400	6.005E-02	1.711E-01	1.052E+00	6.170E-01	4.062E-02	7.752E-03
.638	.450	4.874E-02	1.140E-01	1.062E+00	4.815E-01	6.247E-02	6.191E-03
.732	.500	3.844E-02	8.743E-02	1.158E+00	3.151E-01	9.150E-02	6.351E-03
.831	.550	2.893E-02	6.168E-02	1.343E+00	2.473E-01	1.267E-01	7.455E-03
.934	.600	2.019E-02	3.775E-02	1.611E+00	2.025E-01	1.607E-01	8.354E-03
1.042	.650	1.184E-02	1.942E-02	1.919E+00	1.339E-01	1.758E-01	7.697E-03
1.155	.675	8.355E-03	1.303E-02	1.915E+00	1.060E-01	1.606E-01	7.245E-03
1.213	.700	5.665E-03	8.248E-03	1.415E+00	8.307E-02	1.301E-01	6.788E-03
1.272	.750	3.782E-03	4.678E-03	8.908E-01	6.423E-02	9.575E-02	6.311E-03
1.394	.800	2.511E-03	2.203E-03	4.649E-01	4.895E-02	2.905E-02	3.811E-03
1.521	.850	1.510E-04	1.721E-04	9.581E-04	5.765E-03	1.003E-02	1.951E-03
1.652	.900	9.059E-05	5.451E-04	6.373E-03	2.033E-03	2.417E-03	7.549E-04
1.788	.950	9.822E-06	6.493E-04	7.912E-03	3.626E-03	2.813E-05	1.618E-04
1.923	1.000	5.208E-06	4.545E-04	4.332E-03	4.794E-03	2.459E-04	4.264E-05
2.073	1.050	4.607E-06	1.988E-04	1.546E-03	3.779E-03	3.866E-04	7.332E-05
2.223	1.100	1.243E-06	4.529E-05	4.835E-04	1.677E-03	2.259E-04	7.986E-05
2.373	1.150	1.054E-07	1.422E-05	1.662E-04	2.419E-04	9.751E-05	4.079E-05
2.536	1.200	1.138E-06	2.293E-05	6.420E-05	4.368E-05	3.773E-05	1.201E-05
2.700	1.250	1.793E-06	2.061E-05	1.456E-05	2.782E-04	2.793E-05	1.108E-05
2.869	1.300	2.472E-06	8.462E-06	9.327E-06	2.487E-04	9.595E-06	1.687E-05
3.043	1.350	1.682E-06	1.993E-06	1.277E-05	6.547E-05	4.160E-05	5.536E-06
3.219	1.400	4.563E-07	6.433E-06	1.200E-05	2.769E-05	3.242E-05	3.036E-06
3.409	1.450	1.503E-07	1.719E-06	5.060E-06	6.690E-06	1.463E-05	1.601E-06
3.609	1.500	1.285E-07	1.553E-07	3.179E-06	1.243E-05	4.227E-06	5.465E-07

PHASE (MOTION-WAVEHT)

ME	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
237	200	91.0	89.3	0	116.1	-71.5	-144.4
238	250	90.6	91.4	-2	145.0	-68.8	-131.3
239	300	89.3	92.1	-3	163.4	-68.3	-154.1
240	350	87.6	93.8	-4	-171.8	-67.6	-153.1
241	400	85.8	95.0	-6	-131.1	-65.3	-159.5
242	450	84.6	92.9	-6	-95.7	-61.2	-160.4
243	500	84.1	91.8	0	-75.3	-55.0	-166.7
244	550	83.9	89.8	2.6	-66.0	-46.3	-175.6
245	600	84.3	87.7	10.1	-63.6	-34.3	174.3
246	625	85.2	88.2	17.7	-62.6	-23.7	171.3
247	650	86.3	89.1	29.3	-61.5	-15.1	169.3
248	675	86.6	89.8	44.5	-60.8	-3.3	167.3
249	700	85.5	90.4	61.9	-60.6	8.2	165.2
250	725	83.2	91.0	78.9	-61.1	13.3	162.7
251	750	80.3	92.1	93.9	-62.3	26.8	159.8
252	800	74.4	113.9	114.1	-70.2	42.0	153.9
253	850	63.5	-139.8	81.2	-90.4	57.2	147.4
254	900	65.2	-124.4	-13.9	-152.7	73.7	137.7
255	950	29.4	-128.1	-6.2	171.6	100.6	113.4
256	1000	-49.6	-134.9	-1.8	154.9	-92.0	46.5
257	1050	-75.0	-146.8	-5.9	145.4	-83.5	-7.0
258	1100	-99.4	-174.9	-24.3	136.6	-86.0	-30.9
259	1150	164.5	110.0	-53.7	123.5	-102.2	-53.8
260	1200	71.3	48.6	-80.5	-19.5	-131.6	-102.8
261	1250	42.1	10.9	-93.1	-51.2	-160.6	-175.3
262	1300	-3.5	-39.8	121.0	-74.1	-123.2	143.2
263	1400	-13.2	-141.7	150.0	159.1	28.3	60.9
264	1500	162.5	34.8	5.0	0	-149.2	-149.1
265	1600	103.8	177.5	-123.0	122.7	63.4	-25.3
266	1800	-53.1	-60.9	117.9	-126.5	-56.7	90.5

REC = 51 HEADING = 150. DEG SHIP SPEED = 5. KNOTS RAO (NOTION/HAVENT)**2

WE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	3.205E-01	2.189E-01	9.889E-01	1.731E-03	4.352E-03
.250	2.965E-01	2.308E-01	9.715E-01	5.866E-03	1.011E-02
.264	2.707E-01	2.498E-01	9.502E-01	2.156E-02	2.012E-02
.320	2.428E-01	2.242E-01	9.036E-01	7.950E-02	3.610E-02
.373	2.121E-01	1.818E-01	8.223E-01	3.220E-01	5.889E-02
.436	1.787E-01	1.306E-01	7.032E-01	1.313E+00	8.717E-02
.496	1.437E-01	4.562E-02	5.549E-01	4.033E+00	1.159E-01
.557	1.079E-01	2.091E-02	4.062E-01	1.858E+00	1.392E-01
.613	7.450E-02	1.470E-02	2.848E-01	7.385E-01	1.565E-01
.662	5.947E-02	1.022E-02	2.333E-01	4.922E-01	1.588E-01
.714	4.594E-02	6.242E-03	1.899E-01	3.351E-01	1.588E-01
.746	3.414E-02	3.333E-03	1.547E-01	2.244E-01	1.480E-01
.773	2.422E-02	1.695E-03	1.268E-01	1.468E-01	1.304E-01
.811	1.624E-02	1.241E-03	1.043E-01	9.425E-02	1.093E-01
.844	1.016E-02	1.679E-03	8.516E-02	6.196E-02	8.455E-02
.873	3.007E-03	3.557E-03	5.489E-02	4.197E-02	3.478E-02
.900	4.452E-04	3.727E-03	5.563E-02	4.342E-02	4.296E-02
.927	1.435E-05	2.684E-03	9.146E-02	4.016E-02	1.921E-02
.950	4.095E-06	1.307E-03	9.125E-02	3.591E-02	1.055E-02
1.000	1.857E-06	4.411E-04	3.933E-02	1.806E-02	1.212E-02
1.050	7.897E-06	2.609E-04	4.843E-03	4.584E-03	6.976E-03
1.100	1.822E-05	2.606E-04	1.624E-04	5.096E-04	1.553E-03
1.151	1.908E-05	1.728E-04	9.589E-04	1.725E-03	1.633E-04
1.207	1.555E-05	8.671E-05	5.456E-04	1.299E-03	5.510E-04
1.250	1.158E-05	9.177E-05	4.948E-04	1.168E-04	4.322E-04
1.300	3.992E-06	9.805E-05	7.595E-04	6.437E-04	4.769E-05
1.400	9.285E-07	1.352E-05	2.083E-04	4.372E-04	2.975E-04
1.600	5.933E-07	7.951E-06	7.572E-06	1.861E-05	5.896E-05
2.101	7.755E-07	1.687E-06	4.350E-06	1.866E-05	9.431E-07
2.993	3.085E-07	1.343E-06	4.283E-07	2.126E-05	4.233E-06

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
209	200	89.8	89.6	.2	103.9	-88.3	-178.8
264	250	89.1	91.4	.1	123.2	-86.2	-175.5
320	300	87.8	91.0	-.2	133.4	-84.5	-174.7
378	350	86.2	91.3	-.4	148.8	-82.6	179.3
436	400	84.4	92.9	-.6	159.2	-80.2	174.0
496	450	82.5	93.3	-.2	178.1	-77.0	173.9
557	500	80.7	110.6	-.5	-131.6	-72.9	-167.9
619	550	79.1	88.5	-.2	-84.4	-68.2	-171.6
682	600	78.1	87.1	-.9	-68.9	-62.5	170.2
714	625	77.6	89.3	-1.5	-66.7	-59.2	163.7
746	650	77.3	94.0	-18.1	-67.1	-55.5	157.9
779	675	77.1	103.3	-23.5	-70.1	-51.3	152.3
811	700	77.1	122.5	-29.7	-75.1	-46.7	146.5
844	725	77.3	153.4	-35.5	-35.9	-41.6	140.3
878	750	77.6	179.6	-43.8	-100.7	-35.9	133.4
914	800	79.1	-162.9	-63.0	-141.8	-22.4	115.1
945	850	82.5	-159.7	-83.3	-174.6	-1.3	87.6
1084	900	97.3	-163.0	-98.0	167.3	-176.8	10.3
1155	950	-148.9	-174.7	-86.3	155.3	-154.3	-35.3
1227	1000	171.3	155.1	-70.1	146.2	-139.0	-56.7
1300	1050	78.9	96.6	-56.5	128.1	-124.1	-78.5
1375	1100	53.8	51.2	61.9	43.4	-102.3	-112.8
1451	1150	24.1	15.1	109.8	-13.9	-16.2	-165.4
1527	1200	-11.3	-26.6	93.5	-35.8	48.6	150.7
1605	1250	-45.4	-94.9	37.0	-81.4	63.5	115.6
1684	1300	-79.5	-133.3	7.2	162.4	81.9	61.8
1845	1400	122.0	119.7	4.5	138.0	-113.3	-50.7
2181	1600	-135.6	-123.8	-151.9	161.2	60.8	61.3
2537	1800	-32.1	-63.5	157.3	-51.9	2.1	130.7
2909	2000	.5	-5.1	125.7	157.9	-94.2	122.8

REC = 52

HEADING = 150. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	2.69E-01	1.97E-01	9.87E-01	1.839E-03	4.73E-03	4.200E-04
.250	.250	2.40E-01	2.18E-01	9.76E-01	6.77E-03	1.05E-02	1.23E-03
.300	.300	2.11E-01	2.22E-01	9.62E-01	2.75E-02	2.04E-02	3.30E-03
.350	.350	1.83E-01	1.90E-01	9.23E-01	1.11E-01	3.65E-02	5.61E-03
.400	.400	1.55E-01	1.45E-01	8.50E-01	4.84E-01	5.96E-02	1.17E-02
.450	.450	1.26E-01	7.58E-02	7.43E-01	1.88E+00	8.84E-02	1.57E-02
.500	.500	9.89E-02	3.49E-02	6.17E-01	1.17E+00	1.18E-01	7.78E-03
.550	.550	7.23E-02	2.54E-02	5.19E-01	5.82E-01	1.50E-01	6.35E-03
.600	.600	4.84E-02	1.39E-02	4.38E-01	3.02E-01	1.74E-01	6.55E-03
.625	.625	3.79E-02	9.00E-03	4.05E-01	2.27E-01	1.78E-01	6.46E-03
.650	.650	2.87E-02	5.14E-03	3.75E-01	1.88E-01	1.76E-01	6.13E-03
.675	.675	2.07E-02	2.56E-03	3.42E-01	1.21E-01	1.66E-01	5.55E-03
.700	.700	1.42E-02	1.22E-03	2.98E-01	8.50E-02	1.48E-01	4.74E-03
.725	.725	9.03E-03	8.50E-04	2.45E-01	5.84E-02	1.23E-01	3.76E-03
.750	.750	5.16E-03	9.44E-04	1.82E-01	3.23E-02	9.40E-02	2.75E-03
.800	.800	1.20E-03	1.62E-03	5.04E-02	1.92E-02	3.43E-02	1.17E-03
.850	.850	1.54E-04	2.00E-03	3.83E-02	1.62E-02	4.01E-03	3.24E-04
.900	.900	5.45E-06	1.67E-03	6.11E-02	1.95E-02	5.61E-04	1.42E-04
.950	.950	8.80E-06	8.15E-04	4.38E-02	1.64E-02	3.54E-03	2.83E-04
1.000	1.000	1.03E-05	2.44E-04	1.84E-02	7.94E-03	3.93E-03	3.32E-04
1.050	1.050	4.45E-06	1.03E-04	5.13E-03	1.61E-03	2.10E-03	2.10E-04
1.100	1.100	3.41E-06	9.88E-05	1.36E-03	3.28E-05	5.17E-04	7.99E-05
1.150	1.150	1.17E-05	5.28E-05	1.50E-04	5.25E-04	3.86E-05	4.33E-05
1.200	1.200	8.16E-06	2.41E-05	8.33E-05	3.33E-04	2.29E-04	4.36E-05
1.250	1.250	2.88E-07	3.68E-05	2.99E-05	4.98E-06	2.92E-04	2.16E-05
1.300	1.300	2.21E-06	3.02E-05	1.66E-04	3.32E-04	9.22E-05	6.36E-06
1.350	1.350	1.41E-06	6.15E-06	7.40E-05	1.19E-04	3.82E-05	7.93E-06
1.400	1.400	4.94E-07	3.64E-06	2.03E-06	2.15E-05	6.30E-06	1.70E-06
1.450	1.450	4.15E-07	3.40E-07	8.08E-06	3.20E-05	7.12E-06	1.12E-06
1.500	1.500	5.90E-08	5.35E-07	3.14E-06	5.45E-07	9.39E-06	2.11E-07
1.550	1.550						
1.600	1.600						
1.650	1.650						
1.700	1.700						
1.750	1.750						
1.800	1.800						
1.850	1.850						
1.900	1.900						
1.950	1.950						
2.000	2.000						

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.218	.200	89.9	89.5	.2	111.9	-84.4	-173.0
.278	.250	89.2	90.7	-.0	129.4	-82.3	-167.3
.341	.300	87.9	91.2	-.3	144.7	-80.6	-171.1
.406	.350	86.2	91.7	-.5	155.9	-78.7	-178.3
.473	.400	84.5	94.9	-1.0	175.2	-75.9	-178.5
.542	.450	82.7	101.9	-1.9	-142.0	-72.1	-170.5
.614	.500	81.1	91.3	-3.5	-92.6	-67.2	-167.5
.688	.550	80.3	87.4	-6.2	-71.2	-61.3	-178.9
.764	.600	79.8	87.8	-9.9	-64.7	-53.5	167.1
.803	.625	79.7	89.5	-11.6	-64.9	-48.8	151.5
.842	.652	79.8	93.5	-12.7	-67.0	-43.6	155.9
.882	.675	80.1	102.5	-12.9	-71.4	-37.6	150.0
.923	.700	80.5	122.4	-12.0	-78.3	-30.9	143.7
.964	.725	81.3	153.4	-9.9	-87.3	-23.1	138.0
1.005	.750	82.5	173.5	-6.2	-98.3	-13.2	134.1
1.091	.800	83.4	-155.2	-9.3	-134.8	9.6	122.6
1.179	.850	83.2	-149.1	-55.7	-170.5	35.8	96.8
1.269	.900	112.9	-152.8	-55.3	170.5	-170.2	28.3
1.361	.950	-170.7	-166.1	-40.0	158.4	-137.3	-21.5
1.455	1.000	173.8	168.0	-23.1	149.2	-122.3	-44.5
1.551	1.050	134.7	169.2	-2.7	136.7	-109.7	-65.5
1.650	1.100	53.7	109.2	29.0	42.1	-95.1	-99.3
1.752	1.150	18.3	24.0	114.3	-30.3	-2.9	-161.0
1.855	1.200	6.0	-41.0	172.8	-41.9	68.5	154.7
1.960	1.250	-13.4	-98.3	-74.7	-154.1	87.3	119.6
2.069	1.300	-173.4	-131.8	-17.4	140.4	104.5	50.1
2.291	1.400	125.1	82.7	-15.8	121.0	-112.2	-63.5
2.764	1.600	-130.2	-140.8	76.5	168.5	60.9	31.3
3.274	1.800	-53.1	-49.6	118.9	-104.5	-74.0	109.7
3.820	2.000	-69.3	3.5	39.1	-126.8	-133.1	123.1

REC = 53 HEADING = 150. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	2.285E-01	1.769E-01	9.871E-01	1.963E-03	5.114E-03	2.659E-04
.293	.250	1.966E-01	2.024E-01	9.860E-01	8.035E-03	1.000E-02	8.854E-04
.361	.300	1.679E-01	1.951E-01	9.800E-01	3.545E-02	2.082E-02	2.592E-03
.434	.350	1.414E-01	1.604E-01	9.518E-01	1.541E-01	3.656E-02	5.517E-03
.503	.400	1.155E-01	1.079E-01	8.932E-01	6.172E-01	5.984E-02	9.418E-03
.583	.450	9.280E-02	5.143E-02	8.030E-01	8.110E-01	8.819E-02	7.234E-03
.670	.500	7.063E-02	3.589E-02	7.446E-01	4.323E-01	1.200E-01	5.195E-03
.755	.550	5.018E-02	2.336E-02	7.156E-01	2.599E-01	1.596E-01	5.409E-03
.845	.600	3.256E-02	1.175E-02	7.175E-01	1.677E-01	1.867E-01	5.590E-03
.891	.625	2.491E-02	7.285E-03	7.167E-01	1.330E-01	1.912E-01	5.417E-03
.938	.650	1.823E-02	4.014E-03	6.945E-01	1.030E-01	1.854E-01	5.031E-03
.986	.675	1.237E-02	2.025E-03	6.608E-01	7.090E-02	1.740E-01	4.309E-03
1.034	.700	7.722E-03	9.213E-04	5.693E-01	4.564E-02	1.400E-01	3.533E-03
1.083	.725	4.413E-03	4.409E-04	3.965E-01	2.806E-02	1.119E-01	2.788E-03
1.134	.750	2.332E-03	4.037E-04	1.993E-01	1.668E-02	7.215E-02	2.101E-03
1.186	.800	5.303E-04	9.288E-05	1.113E-02	7.332E-03	1.936E-02	9.879E-04
1.243	.850	7.155E-05	1.288E-05	2.236E-02	7.458E-03	2.209E-03	2.878E-04
1.302	.900	5.865E-06	9.236E-06	3.414E-02	9.135E-03	3.604E-04	8.764E-05
1.366	.950	1.309E-06	4.224E-06	2.293E-02	7.447E-03	1.494E-03	1.460E-04
1.432	1.000	9.847E-06	1.186E-06	8.773E-03	3.453E-03	1.645E-03	1.628E-04
1.502	1.050	1.331E-06	3.636E-06	6.498E-04	5.224E-04	8.578E-04	8.480E-05
1.575	1.100	7.811E-06	2.766E-06	5.084E-05	3.199E-05	1.619E-04	2.436E-05
2.052	1.150	1.020E-05	1.428E-05	2.555E-04	2.878E-04	1.555E-05	1.674E-05
2.382	1.200	4.093E-06	6.133E-06	6.665E-05	1.321E-04	6.843E-05	1.721E-05
2.715	1.250	5.273E-07	1.103E-05	2.510E-06	2.982E-05	6.238E-05	6.777E-06
2.953	1.300	1.354E-07	1.253E-05	3.302E-05	2.444E-04	1.681E-05	3.431E-06
2.736	1.400	1.358E-06	4.503E-06	1.223E-05	6.441E-05	3.683E-06	4.594E-06
3.245	1.600	8.740E-08	2.763E-06	7.465E-06	1.636E-05	2.603E-05	1.387E-06
4.011	1.800	5.840E-07	4.895E-07	1.097E-05	1.219E-05	1.288E-05	5.284E-07
4.729	2.000	6.999E-08	2.879E-07	3.012E-06	1.159E-06	7.621E-06	1.680E-07

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	89.9	89.3	.2	114.9	-83.5	-166.6
.233	.250	83.3	91.0	-.1	136.8	-78.3	-159.1
.361	.300	88.0	91.4	-.4	152.5	-76.8	-167.5
.434	.350	86.3	92.6	-.7	158.6	-74.8	-175.1
.503	.400	84.6	95.9	-1.3	159.5	-71.7	-172.7
.588	.450	82.9	94.5	-2.2	-109.7	-67.2	-164.8
.670	.500	82.1	89.8	-3.7	-79.2	-61.4	-172.3
.755	.550	81.7	88.2	-5.2	-67.0	-53.7	176.7
.845	.600	81.8	88.2	-4.6	-64.5	-43.4	165.7
.891	.625	82.2	89.7	-2.5	-66.1	-37.0	160.0
.938	.650	82.7	93.8	1.3	-69.5	-29.9	154.0
.986	.675	83.9	102.1	8.2	-72.2	-23.5	150.5
1.034	.700	84.9	116.7	18.8	-75.8	-9.2	147.6
1.083	.725	85.2	144.1	32.1	-81.8	3.1	144.3
1.134	.750	84.1	180.0	45.5	-91.4	15.4	140.3
1.226	.800	79.4	-144.8	37.5	-126.2	37.3	128.1
1.343	.850	78.7	-140.3	-37.4	-167.7	65.3	102.5
1.452	.900	131.8	-145.3	-28.7	168.7	-12.7	39.2
1.566	.950	-179.8	-157.0	-16.4	157.5	-128.5	-12.1
1.682	1.000	176.0	176.5	-4.4	150.9	-110.8	-34.9
1.802	1.050	105.4	117.5	5.0	143.8	-92.7	-58.1
1.925	1.100	41.4	62.8	-167.2	-35.4	-70.7	-100.5
2.052	1.150	30.6	17.6	-161.7	-45.6	42.3	-169.3
2.182	1.200	17.1	-54.3	-169.2	-61.6	85.9	148.4
2.315	1.250	-4.6	-121.4	81.1	177.5	91.3	108.4
2.453	1.300	-151.5	-154.4	15.0	137.4	51.9	23.3
2.583	1.400	114.6	76.0	-48.4	89.8	-82.7	-77.0
2.735	1.500	-58.1	-149.0	174.9	170.0	32.6	16.8
3.011	1.600	-57.3	-83.1	109.7	-104.2	-71.8	114.5
4.011	1.800	-80.9	-30.0	35.9	-72.8	-133.4	152.6

REC = 54

HEADING = 150. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.235	.200	1.949E-01	1.568E-01	9.895E-01	2.098E-03	5.477E-03	1.587E-04
.307	.250	1.625E-01	1.834E-01	9.997E-01	9.708E-03	1.093E-02	6.216E-04
.332	.300	1.343E-01	1.697E-01	1.004E+00	4.623E-02	2.044E-02	2.050E-03
.461	.350	1.103E-01	1.330E-01	9.896E-01	2.119E-01	3.621E-02	4.681E-03
.545	.400	8.914E-02	7.647E-02	9.488E-01	5.959E-01	5.925E-02	6.444E-03
.634	.450	6.952E-02	4.474E-02	9.082E-01	4.098E-01	8.853E-02	4.165E-03
.727	.500	5.174E-02	3.250E-02	9.731E-01	2.391E-01	1.257E-01	4.023E-03
.825	.550	3.586E-02	2.003E-02	1.015E+00	1.629E-01	1.645E-01	4.502E-03
.927	.600	2.222E-02	9.548E-03	1.125E+00	1.134E-01	1.931E-01	4.617E-03
.931	.625	1.619E-02	5.859E-03	1.174E+00	8.636E-02	1.927E-01	4.271E-03
1.034	.650	1.094E-02	3.314E-03	1.163E+00	6.127E-02	1.875E-01	3.771E-03
1.143	.675	6.855E-03	1.648E-03	9.744E-01	4.219E-02	1.523E-01	3.261E-03
1.233	.700	4.034E-03	6.710E-04	6.295E-01	2.600E-02	1.098E-01	2.750E-03
1.261	.725	2.287E-03	2.255E-04	2.978E-01	1.785E-02	7.003E-02	2.243E-03
1.332	.750	1.243E-03	1.734E-04	9.860E-02	1.103E-02	4.078E-02	1.769E-03
1.537	.800	3.023E-04	5.517E-04	1.569E-03	3.843E-03	1.037E-02	7.536E-04
1.636	.850	4.472E-05	7.013E-04	1.718E-02	3.674E-03	1.205E-03	1.837E-04
1.771	.900	6.965E-06	5.195E-04	2.020E-02	4.683E-03	2.319E-04	4.763E-05
1.909	1.000	4.423E-06	2.209E-04	8.385E-03	3.786E-03	9.081E-04	7.429E-05
2.032	1.050	6.757E-07	5.179E-05	1.524E-03	1.522E-03	9.081E-04	7.371E-05
2.203	1.100	1.161E-06	1.265E-05	5.648E-05	1.503E-04	3.685E-04	3.401E-05
2.333	1.150	3.583E-06	1.577E-05	7.104E-05	5.936E-05	4.881E-05	9.026E-06
2.509	1.200	3.447E-06	7.380E-06	5.999E-05	2.099E-04	5.475E-06	8.572E-06
2.630	1.250	2.329E-06	4.935E-06	1.087E-05	8.889E-05	1.301E-05	9.972E-06
2.837	1.300	1.224E-06	1.137E-05	1.555E-05	5.110E-05	4.753E-06	4.877E-06
3.097	1.400	1.252E-07	1.078E-05	6.327E-06	1.672E-04	1.726E-05	3.478E-06
3.297	1.500	1.809E-06	4.360E-06	3.742E-05	7.066E-05	1.267E-05	3.592E-06
4.747	1.600	8.601E-08	2.264E-06	8.709E-06	1.622E-05	2.852E-05	1.096E-06
5.633	1.800	4.205E-07	3.885E-07	8.420E-06	8.424E-06	9.759E-06	5.841E-07
	2.000	4.945E-08	1.927E-07	1.789E-06	1.548E-07	4.906E-06	8.505E-08

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.235	.200	90.0	89.3	.1	117.9	-76.7	-158.8
.307	.250	89.4	91.2	-.2	143.9	-74.2	-150.1
.332	.300	89.1	91.8	-.5	159.8	-72.9	-163.9
.461	.350	88.4	93.6	-.8	-178.5	-71.0	-170.7
.545	.400	88.6	97.0	-1.3	-133.8	-67.6	-163.3
.634	.450	88.6	91.9	-2.0	-90.8	-62.5	-163.6
.727	.500	88.2	89.8	-2.5	-70.3	-58.4	-173.5
.825	.550	88.3	88.2	-1.1	-62.9	-45.7	175.7
.927	.600	88.1	87.9	5.8	-63.5	-32.5	164.1
.991	.625	85.2	91.0	13.2	-64.4	-23.3	160.3
1.034	.650	85.5	93.6	25.1	-65.0	-11.8	157.9
1.083	.675	87.0	99.2	40.9	-66.6	1.0	155.4
1.145	.700	86.0	110.0	58.8	-69.6	13.7	152.4
1.223	.725	83.8	136.7	75.7	-74.7	25.0	148.9
1.281	.750	80.9	-171.5	89.2	-83.0	34.9	144.4
1.382	.800	76.5	-136.2	21.5	-120.8	54.6	132.9
1.507	.850	81.6	-133.6	-24.2	-169.9	84.6	111.0
1.635	.900	139.3	-137.9	-14.9	167.6	-166.0	49.2
1.771	.950	-162.5	-151.2	-4.9	155.3	-107.5	-7.5
1.939	1.000	-153.3	-177.8	-1.0	149.3	-89.9	-32.3
2.032	1.050	51.8	115.1	-38.6	143.5	-81.1	-57.4
2.200	1.100	46.9	57.3	-131.4	-44.1	-93.3	-109.5
2.333	1.150	32.0	23.8	-160.1	-55.7	176.8	177.3
2.509	1.200	1.9	-69.3	155.9	-80.7	122.0	135.0
2.670	1.250	-40.5	-120.5	72.0	-178.4	85.6	87.3
2.837	1.300	-83.2	-159.5	38.7	134.6	39.3	11.4
3.027	1.400	130.6	73.6	-36.9	86.7	176.2	-84.9
3.242	1.500	17.5	-153.8	-173.3	170.7	34.9	18.4
4.747	1.800	-53.2	-83.0	111.4	-114.2	-69.0	101.7
5.639	2.000	-91.7	-36.3	38.4	-157.9	-134.1	127.2

REC = 55 HEADING = 150. DEG SHIP SPEED = 25. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.245	.200	1.673E-01	1.381E-01	9.951E-01	2.241E-03	5.800E-03	9.228E-05
.321	.250	1.555E-01	1.638E-01	1.019E+00	1.186E-02	1.090E-02	4.448E-04
.402	.300	1.097E-01	1.468E-01	1.035E+00	6.134E-02	2.003E-02	1.658E-03
.493	.350	8.800E-02	1.083E-01	1.036E+00	2.926E-01	3.544E-02	4.031E-03
.582	.400	6.338E-02	5.575E-02	1.014E+00	4.820E-01	5.800E-02	3.955E-03
.680	.450	5.100E-02	3.972E-02	1.053E+00	2.545E-01	8.807E-02	2.835E-03
.784	.500	3.856E-02	2.837E-02	1.183E+00	1.629E-01	1.239E-01	3.222E-03
.894	.550	2.598E-02	1.683E-02	1.411E+00	1.190E-01	1.643E-01	3.721E-03
1.009	.600	1.483E-02	7.805E-03	1.692E+00	7.612E-02	1.859E-01	3.540E-03
1.069	.625	1.011E-02	4.830E-03	1.690E+00	5.640E-02	1.757E-01	3.251E-03
1.130	.650	5.445E-03	2.715E-03	1.374E+00	4.110E-02	1.444E-01	2.948E-03
1.193	.675	3.859E-03	1.294E-03	8.525E-01	2.932E-02	1.036E-01	2.634E-03
1.257	.700	2.382E-03	4.553E-04	4.056E-01	2.040E-02	6.787E-02	2.311E-03
1.322	.725	1.389E-03	9.847E-05	1.425E-01	1.306E-02	4.182E-02	1.889E-03
1.389	.750	7.709E-04	7.102E-05	3.039E-02	6.953E-03	2.411E-02	1.324E-03
1.527	.800	1.956E-04	2.917E-04	2.207E-03	1.930E-03	5.879E-03	5.137E-04
1.671	.850	2.817E-05	4.028E-04	1.189E-02	2.018E-03	5.547E-04	1.192E-04
1.821	.900	1.320E-08	2.828E-04	8.009E-03	2.850E-03	2.401E-04	2.353E-05
1.976	.950	2.276E-06	1.145E-04	2.571E-03	2.129E-03	6.758E-04	3.815E-05
2.137	1.000	4.238E-07	2.263E-05	5.111E-04	7.885E-04	4.043E-04	3.978E-05
2.303	1.050	3.073E-07	9.097E-06	9.781E-05	5.080E-05	1.259E-04	1.735E-05
2.475	1.100	2.108E-06	1.295E-05	4.576E-05	7.600E-05	2.473E-05	5.052E-06
2.654	1.150	2.537E-06	9.193E-06	1.054E-05	1.693E-04	1.810E-05	7.736E-06
2.837	1.200	1.882E-06	1.110E-05	1.765E-05	3.543E-05	1.981E-05	3.751E-06
3.026	1.250	1.111E-07	9.648E-06	2.701E-07	1.286E-04	4.004E-05	3.191E-06
3.221	1.300	1.703E-06	4.151E-06	3.783E-05	4.049E-05	1.889E-05	2.673E-06
3.409	1.400	7.026E-08	1.276E-06	6.055E-06	1.561E-05	2.103E-05	1.331E-06
5.485	1.800	2.892E-07	1.742E-07	5.093E-06	7.422E-06	6.810E-06	3.584E-07
6.549	2.000	2.824E-08	1.752E-07	1.062E-06	1.151E-08	2.967E-06	7.331E-08

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.245	.200	93.1	89.2	.0	120.4	-72.8	-149.0
.321	.250	89.6	91.4	-.2	150.0	-70.0	-140.2
.402	.300	88.2	92.2	-.4	166.5	-69.2	-160.4
.489	.350	86.6	95.5	-.7	-164.6	-67.4	-164.9
.582	.400	85.0	94.9	-1.0	-111.8	-63.7	-156.3
.680	.450	84.4	91.3	-1.0	-76.9	-57.9	-162.6
.784	.500	84.3	89.5	.3	-62.6	-49.4	-173.9
.894	.550	84.9	87.6	6.0	-58.8	-37.5	174.5
1.009	.600	87.1	88.8	22.0	-58.5	-19.3	166.4
1.069	.625	88.3	90.6	37.0	-58.3	-6.7	164.2
1.130	.650	88.3	92.7	55.7	-58.7	6.5	161.9
1.193	.675	86.3	96.0	75.2	-60.0	18.8	159.2
1.257	.700	84.2	103.1	92.8	-62.7	29.2	155.9
1.322	.725	81.5	129.9	107.2	-67.9	38.5	152.1
1.389	.750	79.1	167.6	116.4	-77.5	47.9	148.5
1.527	.800	76.0	-130.3	-14.2	-118.8	67.6	139.0
1.671	.850	81.7	-128.1	-14.8	-171.6	98.2	119.2
1.821	.900	-134.0	-135.9	-3.9	165.5	-112.2	51.3
1.975	.950	-97.6	-148.6	1.2	154.9	-88.5	-7.4
2.137	1.000	-115.5	179.0	-11.6	144.8	-82.0	-34.5
2.303	1.050	91.5	96.9	-55.0	128.5	-91.1	-61.9
2.475	1.100	55.6	41.0	-103.3	-39.0	-126.8	-128.0
2.654	1.150	27.5	-8.2	-128.3	-56.9	-179.3	163.6
2.837	1.200	-11.1	-78.2	122.4	-89.0	-179.5	125.4
3.025	1.250	-23.1	-132.4	121.0	-167.4	27.8	78.6
3.221	1.300	28.0	-162.2	-100.9	136.4	48.7	5.3
3.427	1.400	138.5	78.6	-34.4	72.0	172.4	-92.5
4.503	1.600	29.6	-156.5	-173.2	178.8	35.7	21.1
5.485	1.800	-59.6	-80.1	111.6	-111.9	-70.7	108.0
6.549	2.000	-78.1	-52.8	39.5	32.4	-132.4	149.2

REC = 56

HEADING = 165. DEG . SHIP SPEED = 5. KNOTS
PAO (MOTION/AVEVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	3.955E-01	5.780E-02	9.851E-01	4.797E-04	5.334E-03	1.991E-04
.266	.290	3.624E-01	6.098E-02	9.626E-01	1.697E-03	1.240E-02	5.365E-04
.323	.330	3.268E-01	6.476E-02	9.315E-01	6.589E-03	2.462E-02	1.359E-03
.381	.390	2.880E-01	5.683E-02	8.697E-01	2.516E-02	4.380E-02	2.567E-03
.441	.430	2.455E-01	4.800E-02	7.883E-01	9.978E-02	7.024E-02	4.229E-03
.501	.490	1.998E-01	3.216E-02	6.283E-01	5.004E-01	1.011E-01	7.151E-03
.563	.500	1.526E-01	6.603E-03	4.052E-01	1.926E+00	1.286E-01	7.371E-03
.627	.550	1.072E-01	3.480E-03	3.143E-01	5.184E-01	1.465E-01	1.759E-03
.691	.600	6.737E-02	2.182E-03	1.080E-01	1.687E-01	1.515E-01	1.739E-03
.757	.650	3.625E-02	6.649E-04	1.191E-01	6.281E-02	1.324E-01	1.605E-03
.790	.675	2.461E-02	3.705E-04	9.360E-02	3.815E-02	1.135E-01	1.393E-03
.824	.700	1.563E-02	3.819E-04	7.510E-02	2.334E-02	9.021E-02	1.106E-03
.858	.725	9.118E-03	6.001E-04	5.136E-02	1.566E-02	6.451E-02	7.935E-04
.893	.750	4.776E-03	8.938E-04	5.117E-02	1.305E-02	3.966E-02	4.990E-04
.927	.800	7.967E-04	1.200E-03	4.539E-02	1.507E-02	5.635E-03	1.098E-04
1.033	.850	3.273E-05	8.486E-04	7.822E-02	1.538E-02	2.493E-03	4.050E-05
1.105	.900	5.799E-06	3.874E-04	9.706E-02	1.133E-02	1.479E-02	1.214E-04
1.179	.950	1.371E-06	1.126E-04	4.681E-02	5.114E-03	1.627E-02	1.684E-04
1.253	1.000	1.567E-05	6.422E-05	4.826E-03	9.243E-04	8.020E-03	1.278E-04
1.329	1.050	3.005E-05	7.723E-05	7.273E-04	2.397E-04	1.342E-03	6.266E-05
1.407	1.100	2.027E-05	4.665E-05	1.681E-03	6.549E-04	3.941E-04	4.131E-05
1.485	1.150	1.058E-05	2.752E-05	3.006E-04	3.188E-04	9.933E-04	3.689E-05
1.565	1.200	7.745E-06	3.336E-05	6.685E-04	5.242E-05	4.240E-04	1.834E-05
1.645	1.250	3.143E-06	2.726E-05	1.268E-03	3.155E-04	1.706E-05	8.541E-06
1.723	1.300	3.696E-07	9.666E-06	5.649E-04	2.946E-04	3.401E-04	1.019E-05
1.805	1.400	7.343E-06	6.032E-06	1.642E-04	3.334E-05	1.545E-04	2.526E-06
1.885	1.500	2.671E-06	5.894E-07	3.782E-05	1.516E-05	6.633E-06	8.729E-07
2.000	1.600	4.337E-07	1.012E-07	5.986E-06	1.004E-05	1.512E-06	4.206E-07
2.125	1.700	4.935E-07	2.915E-07	2.541E-06	1.555E-05	5.785E-06	4.266E-08

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	89.4	89.6	.2	11.5	-88.0	-179.0
.260	.200	88.6	90.4	.1	12.3	-85.9	-176.0
.323	.300	87.4	90.9	-.2	13.7	-84.0	-176.4
.381	.300	85.8	91.3	-.4	14.6	-82.0	177.4
.441	.400	84.0	93.3	-.7	15.9	-79.2	171.7
.501	.400	82.2	101.9	-1.5	17.4	-75.6	171.0
.563	.500	80.5	124.9	-3.4	-12.5	-71.1	-160.9
.627	.500	79.3	83.5	-7.2	-74.8	-65.8	-175.4
.691	.500	78.6	88.6	-14.3	-58.9	-59.4	163.1
.724	.600	78.4	95.5	-19.8	-62.7	-55.5	156.5
.757	.600	78.4	109.1	-26.7	-69.7	-51.2	150.6
.790	.600	78.7	135.6	-34.9	-77.6	-46.4	144.5
.824	.700	79.2	168.1	-44.3	-90.6	-41.0	138.0
.858	.700	80.2	-172.2	-54.7	-108.4	-34.7	130.5
.893	.700	81.7	-164.0	-66.4	-132.0	-27.5	121.2
.962	.800	87.9	-162.2	-94.5	-169.3	-5.4	89.4
1.033	.800	113.4	-165.2	-110.1	170.4	164.6	5.0
1.105	.900	-152.6	-176.6	-101.4	158.3	-163.3	-41.3
1.179	.900	141.2	152.0	-82.6	147.2	-143.2	-62.4
1.253	1.000	69.5	87.8	-65.9	124.9	-124.9	-85.3
1.329	1.000	51.1	41.6	127.6	22.1	-95.0	-123.7
1.407	1.100	23.6	1.2	129.4	-22.6	17.6	-179.2
1.485	1.100	-23.0	-58.7	102.1	-43.0	58.3	138.0
1.565	1.200	-71.1	-111.7	12.3	-143.3	76.1	97.6
1.646	1.200	-97.5	-148.8	4.8	162.8	-145.8	30.5
1.728	1.300	140.7	165.4	2.2	149.1	-110.4	-30.3
1.806	1.400	-1.3	13.1	144.2	-31.3	-78.7	-148.3
2.248	1.600	122.5	101.5	-27.7	121.3	-157.3	-54.7
2.622	1.800	-177.8	120.1	6.4	140.3	160.4	-34.8
3.014	2.000	154.3	162.2	-54.3	-42.0	89.2	-92.9

REC = 57 HEADING = 165. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	3.267E-01	5.167E-02	9.837E-01	5.155E-04	5.741E-03	1.379E-04	
.250	2.81E-01	5.740E-02	9.692E-01	2.025E-03	1.281E-02	4.116E-04	
.300	2.431E-01	5.691E-02	9.454E-01	8.731E-03	2.499E-02	1.070E-03	
.350	2.117E-01	4.770E-02	8.919E-01	3.765E-02	4.437E-02	2.092E-03	
.400	1.743E-01	3.572E-02	8.003E-01	1.900E-01	7.147E-02	3.782E-03	
.450	1.373E-01	1.417E-02	6.731E-01	8.443E-01	1.029E-01	5.040E-03	
.500	1.017E-01	5.478E-03	5.305E-01	3.509E-01	1.333E-01	1.644E-03	
.550	6.925E-02	4.626E-03	4.312E-01	1.403E-01	1.635E-01	1.529E-03	
.600	4.202E-02	2.035E-03	3.465E-01	6.002E-02	1.722E-01	1.575E-03	
.625	3.035E-02	1.092E-03	3.113E-01	4.740E-02	1.673E-01	1.492E-03	
.650	2.154E-02	5.039E-04	2.754E-01	3.531E-02	1.500E-01	1.331E-03	
.675	1.414E-02	2.546E-04	2.329E-01	2.145E-02	1.324E-01	1.107E-03	
.700	8.612E-03	2.696E-04	1.799E-01	1.414E-02	1.041E-01	8.480E-04	
.725	4.611E-03	3.583E-04	1.267E-01	8.345E-03	7.454E-02	5.771E-04	
.750	2.169E-03	4.687E-04	7.174E-02	5.600E-03	4.478E-02	3.566E-04	
.800	2.913E-04	5.854E-04	3.814E-02	5.252E-03	6.022E-03	9.040E-05	
.850	1.732E-05	4.790E-04	7.492E-02	6.097E-03	7.060E-04	3.257E-05	
.900	9.835E-06	2.481E-04	5.419E-02	5.169E-03	5.062E-03	8.527E-05	
.950	9.795E-06	5.713E-05	2.045E-02	2.039E-03	5.172E-03	9.879E-05	
1.000	5.439E-06	2.951E-05	4.262E-03	3.115E-04	2.354E-04	5.792E-05	
1.050	6.286E-06	2.847E-05	7.725E-04	3.133E-05	3.805E-04	2.073E-05	
1.100	1.194E-05	1.353E-05	1.581E-04	1.830E-04	7.521E-05	1.376E-05	
1.150	5.644E-06	8.163E-06	1.958E-05	6.459E-05	3.303E-04	1.215E-05	
1.200	3.195E-07	1.382E-05	9.049E-05	2.081E-05	2.634E-04	4.291E-06	
1.250	5.555E-06	8.438E-06	3.155E-04	1.395E-04	4.813E-05	2.064E-06	
1.300	3.785E-06	1.231E-06	2.033E-04	9.519E-05	3.610E-05	3.127E-06	
1.350	1.195E-06	3.025E-06	9.410E-06	2.987E-05	2.025E-05	1.158E-06	
1.400	6.751E-07	6.840E-07	9.232E-06	1.727E-05	9.186E-07	4.688E-07	
1.450	2.319E-07	2.447E-07	2.710E-06	2.036E-06	1.022E-05	1.859E-07	
1.500	1.739E-07	4.341E-08	2.760E-06	8.112E-08	7.690E-06	8.361E-08	
1.550							
1.600							
1.650							
1.700							
1.750							
1.800							
1.850							
1.900							
1.950							
2.000							

PHASE (MOTION-WAVEVENT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.220	.200	89.5	89.4	.2	113.6	-84.3	-173.4
.282	.250	83.7	90.7	-.0	131.5	-82.2	-168.3
.346	.300	87.4	91.0	-.3	145.4	-80.4	-173.1
.412	.350	85.8	91.8	-.6	155.8	-78.1	-179.4
.481	.400	84.1	96.2	-1.2	172.4	-74.9	-175.1
.553	.450	82.4	108.8	-2.5	-135.1	-70.5	-165.5
.627	.500	81.2	87.0	-4.7	-79.6	-65.1	-168.0
.703	.550	80.6	85.5	-8.4	-83.4	-58.2	-172.9
.783	.600	80.5	89.2	-13.1	-51.6	-49.3	-160.2
.823	.625	80.9	94.8	-15.1	-64.4	-43.9	-154.3
.864	.650	81.3	107.8	-16.4	-69.9	-37.8	-148.1
.906	.675	82.1	135.6	-16.6	-78.6	-30.9	-141.4
.943	.700	83.1	170.1	-16.3	-91.6	-23.1	-133.8
.992	.725	85.0	-170.3	-15.3	-105.3	-12.9	-129.2
1.035	.750	87.0	-159.6	-17.9	-126.2	-1.1	-123.2
1.125	.800	91.7	-151.8	-59.8	-184.5	27.8	99.3
1.216	.850	121.3	-154.1	-64.5	174.5	-174.7	26.0
1.311	.900	-178.2	-167.2	-48.4	162.3	-138.8	-25.4
1.433	.950	163.1	161.2	-28.1	151.8	-121.6	-43.9
1.507	1.000	113.1	99.9	-4.7	137.8	-106.1	-71.8
1.609	1.050	45.6	53.8	35.2	4.7	-85.0	-111.5
1.714	1.100	10.3	11.8	103.9	-30.1	34.2	-173.7
1.821	1.150	-6.8	-64.1	164.5	-47.0	75.9	144.4
1.931	1.200	-137.1	-112.6	-27.7	167.0	94.4	102.3
2.042	1.250	174.1	-141.9	-10.4	143.2	130.5	15.3
2.157	1.300	150.3	148.8	-5.0	132.7	-122.8	-41.5
2.294	1.400	4.8	5.2	-173.1	-50.9	-103.7	-176.3
2.398	1.500	125.3	75.5	-42.5	90.0	-168.3	-77.7
3.444	1.800	122.4	131.5	-93.6	119.7	73.0	-48.1
4.032	2.000	109.2	137.0	-148.5	36.1	43.8	-78.1

REC = 58 HEADING = 165. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	2.723E-01	4.566E-02	9.841E-01	5.532E-04	6.137E-03	8.783E-05
.298	.250	2.305E-01	5.254E-02	9.798E-01	2.493E-03	1.306E-02	2.979E-04
.363	.300	1.934E-01	4.935E-02	9.655E-01	1.181E-02	2.509E-02	8.397E-04
.443	.350	1.591E-01	3.972E-02	9.240E-01	5.827E-02	4.451E-02	1.771E-03
.522	.400	1.275E-01	2.485E-02	8.483E-01	3.224E-01	7.181E-02	3.281E-03
.604	.450	9.775E-02	9.100E-03	7.443E-01	3.221E-01	1.031E-01	1.646E-03
.693	.500	7.052E-02	7.131E-03	6.810E-01	1.277E-01	1.405E-01	1.205E-03
.780	.550	4.654E-02	4.171E-03	6.454E-01	6.810E-02	1.737E-01	1.335E-03
.874	.600	2.711E-02	1.644E-03	6.290E-01	3.910E-02	1.871E-01	1.321E-03
.922	.625	1.930E-02	8.399E-04	5.999E-01	2.873E-02	1.802E-01	1.218E-03
1.022	.675	7.655E-03	1.716E-04	4.637E-01	1.172E-02	1.375E-01	8.191E-04
1.073	.700	4.135E-03	1.178E-04	3.088E-01	6.835E-03	1.308E-01	6.156E-04
1.125	.725	2.018E-03	1.572E-04	1.383E-01	3.952E-03	6.093E-02	4.341E-04
1.178	.750	8.997E-04	2.389E-04	3.359E-02	2.582E-03	3.053E-02	2.823E-04
1.287	.800	1.213E-04	3.822E-04	1.931E-02	2.391E-03	3.546E-03	9.632E-05
1.400	.850	1.149E-05	2.861E-04	1.041E-02	2.916E-03	4.618E-04	2.398E-05
1.516	.900	1.521E-05	1.251E-04	2.721E-02	2.334E-03	2.014E-03	4.276E-05
1.637	.950	1.289E-05	3.237E-05	1.103E-02	9.945E-04	2.014E-03	4.771E-05
1.761	1.000	2.275E-06	1.067E-05	1.058E-03	1.039E-04	9.222E-04	2.285E-05
1.889	1.050	9.275E-06	7.743E-06	6.561E-05	2.632E-05	1.213E-04	6.282E-05
2.020	1.100	1.104E-05	2.991E-06	3.157E-04	9.235E-05	6.065E-05	5.439E-06
2.155	1.150	2.713E-06	2.611E-06	3.023E-05	2.185E-05	1.193E-04	4.374E-06
2.295	1.200	1.237E-08	3.980E-06	1.642E-05	2.999E-05	6.253E-05	1.183E-06
2.438	1.250	7.381E-07	2.691E-06	6.791E-05	9.174E-05	6.085E-06	1.274E-06
2.586	1.300	1.354E-06	1.183E-06	2.023E-05	4.811E-05	8.438E-06	1.750E-06
2.797	1.400	4.689E-07	1.889E-06	6.249E-07	1.833E-05	1.474E-05	7.853E-07
3.547	1.600	9.289E-07	7.228E-07	1.955E-05	5.156E-06	1.131E-05	2.576E-07
4.256	1.800	2.833E-07	3.301E-08	5.394E-06	1.052E-06	1.344E-05	1.008E-07
5.044	2.000	1.512E-07	3.464E-08	2.555E-06	2.336E-08	6.024E-06	2.674E-08

PHASE (MOTION-HAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.232	.200	89.6	89.3	.1	116.5	-80.7	-167.3
.293	.250	89.9	90.9	-.1	138.4	-78.4	-160.9
.368	.300	87.5	91.3	-.5	151.9	-76.7	-170.1
.433	.350	85.9	92.9	-.9	165.8	-74.3	-177.8
.502	.400	84.2	100.9	-1.6	-158.8	-70.6	-172.2
.577	.450	82.8	92.3	-2.9	-94.1	-65.5	-159.6
.650	.500	82.3	86.9	-4.8	-66.8	-58.8	-176.1
.720	.550	82.2	86.5	-6.4	-59.1	-49.8	170.5
.784	.600	83.0	89.3	-4.7	-61.1	-37.8	158.5
.874	.625	83.7	94.9	-1.4	-65.2	-30.4	152.1
.922	.650	84.9	107.4	4.5	-70.1	-21.3	147.2
1.022	.675	85.6	130.1	14.4	-75.3	-9.7	144.1
1.073	.700	87.6	165.3	27.2	-83.9	3.3	140.5
1.125	.725	87.5	-165.5	39.6	-97.4	16.8	135.9
1.173	.750	85.6	-130.4	41.5	-116.8	29.6	129.6
1.287	.800	87.1	-141.6	-42.0	-158.0	59.3	104.8
1.400	.850	129.5	-146.3	-34.3	175.8	-176.1	38.1
1.516	.900	174.4	-158.4	-19.6	163.1	-127.8	-15.8
1.537	.950	168.4	173.3	-5.5	156.2	-110.9	-38.3
1.761	1.000	102.1	109.4	8.4	148.4	-91.1	-63.0
1.889	1.050	39.6	55.8	179.3	-33.3	-61.0	-113.0
2.020	1.100	28.3	-2.0	-163.0	-43.1	61.3	179.5
2.156	1.150	14.3	-80.9	-163.2	-71.1	88.5	139.1
2.295	1.200	-44.4	-137.1	19.0	163.1	84.7	86.1
2.438	1.250	168.6	-172.2	6.5	138.5	49.0	-6.6
2.586	1.300	131.3	113.9	-13.2	118.2	-56.7	-53.2
2.890	1.400	37.1	1.0	163.2	-58.2	-128.2	170.8
3.547	1.600	140.0	77.1	-43.7	79.6	147.2	-90.3
4.266	1.800	102.8	111.0	-102.4	109.6	72.3	-57.1
5.044	2.000	99.7	139.8	-142.8	10.3	43.6	-61.5

REC = 59

HEADING = 165. DEG . SHIP SPEED = 20. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.241	.200	2.285E-01	3.999E-02	9.870E-01	6.056E-04	6.504E-03	5.322E-05
.333	.250	1.876E-01	4.712E-02	9.954E-01	3.123E-03	1.314E-02	2.123E-04
.391	.300	1.525E-01	4.245E-02	9.928E-01	1.624E-02	2.489E-02	6.697E-04
.474	.350	1.222E-01	3.258E-02	9.668E-01	9.367E-02	4.412E-02	1.576E-03
.562	.400	9.543E-02	1.454E-02	9.118E-01	3.339E-01	7.110E-02	1.966E-03
.653	.450	7.151E-02	9.100E-03	8.742E-01	1.350E-01	1.049E-01	9.222E-04
.754	.500	5.035E-02	6.505E-03	8.993E-01	6.823E-02	1.450E-01	9.945E-04
.867	.550	3.223E-02	3.503E-03	9.828E-01	4.846E-02	1.805E-01	1.125E-03
.983	.600	1.753E-02	1.302E-03	1.047E+00	2.549E-02	1.909E-01	1.060E-03
1.021	.625	1.157E-02	6.808E-04	1.040E+00	1.716E-02	1.805E-01	9.192E-04
1.078	.650	6.973E-03	3.033E-04	8.700E-01	1.116E-02	1.497E-01	7.745E-04
1.137	.675	3.983E-03	1.099E-04	5.448E-01	6.962E-03	1.057E-01	6.309E-04
1.197	.700	2.053E-03	5.002E-05	2.341E-01	4.170E-03	6.412E-02	4.931E-04
1.258	.725	1.023E-03	8.015E-05	6.175E-02	2.870E-03	3.453E-02	3.654E-04
1.320	.750	4.757E-04	1.515E-04	5.487E-03	1.516E-03	1.643E-02	2.403E-04
1.383	.800	7.227E-05	2.106E-04	1.620E-02	1.172E-03	1.952E-03	5.696E-05
1.449	.850	1.133E-05	1.569E-04	2.346E-02	1.468E-03	2.955E-04	1.295E-05
1.513	.900	8.347E-06	6.628E-05	1.158E-02	1.154E-03	1.095E-03	2.174E-05
1.575	.950	1.352E-06	1.446E-05	2.019E-03	4.227E-04	1.083E-03	2.095E-05
2.014	1.000	2.383E-06	3.457E-06	1.757E-05	2.458E-05	4.199E-04	8.356E-06
2.164	1.050	5.384E-06	3.997E-06	9.904E-05	3.106E-05	2.800E-05	2.307E-06
2.327	1.100	4.143E-06	1.503E-06	6.952E-05	6.102E-05	9.521E-06	2.658E-06
2.491	1.150	1.749E-06	1.693E-06	7.857E-06	1.877E-05	2.252E-05	2.332E-06
2.660	1.200	6.366E-07	3.324E-06	2.259E-05	3.037E-05	5.374E-06	1.015E-06
2.834	1.250	2.110E-07	2.248E-06	1.268E-05	6.368E-05	1.145E-05	1.248E-06
3.014	1.300	1.791E-06	1.237E-06	5.108E-05	4.641E-05	1.989E-06	1.471E-06
3.207	1.400	5.723E-08	1.087E-06	4.465E-06	1.353E-05	3.336E-05	6.287E-07
4.193	1.600	8.355E-07	3.610E-07	1.820E-05	4.746E-06	1.341E-05	1.824E-07
5.007	1.800	1.653E-07	8.603E-08	3.736E-06	6.501E-07	9.196E-06	8.574E-08
6.008	2.000	1.014E-07	9.355E-09	1.441E-06	9.317E-08	3.633E-06	4.712E-08

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	89.6	89.2	.1	119.5	-77.1	-160.2
.213	.250	89.0	91.2	-.2	145.0	-74.5	-153.1
.291	.300	87.6	91.8	-.5	158.5	-73.0	-167.1
.474	.350	86.0	95.0	-1.0	179.0	-70.5	-173.4
.562	.400	84.4	100.0	-1.7	-122.4	-66.3	-156.9
.635	.450	83.6	89.1	-2.6	-75.0	-60.4	-163.5
.754	.500	83.5	87.3	-3.0	-59.2	-52.1	-178.5
.837	.550	84.1	85.5	-.3	-56.1	-40.6	169.1
.965	.600	85.8	89.4	10.3	-59.8	-24.6	157.6
1.021	.625	87.5	94.6	21.7	-61.1	-12.9	155.1
1.078	.650	89.6	103.2	37.7	-63.7	.6	152.5
1.137	.675	88.3	121.6	56.4	-68.1	14.3	149.4
1.197	.700	86.6	163.9	74.3	-75.5	26.9	145.5
1.258	.725	84.3	-154.1	87.8	-87.5	38.1	140.3
1.320	.750	82.5	-138.8	81.5	-106.9	49.1	133.6
1.379	.800	87.4	-134.9	-28.8	-158.5	79.8	112.5
1.453	.850	139.7	-139.0	-18.0	175.3	-167.9	48.5
1.521	.900	179.7	-151.6	-6.1	163.4	-111.8	-9.5
1.565	.950	177.3	178.8	1.6	155.9	-90.4	-35.0
2.014	1.000	50.1	110.8	-36.4	153.8	-75.7	-62.3
2.063	1.050	42.6	50.5	-145.8	-41.8	-80.3	-124.0
2.327	1.100	27.7	8.9	-164.7	-55.1	135.7	167.0
2.491	1.150	-4.7	-89.1	137.8	-96.7	109.6	124.2
2.660	1.200	-58.3	-132.6	54.9	166.5	75.6	62.2
2.834	1.250	125.2	-177.5	12.7	133.3	34.8	-13.8
3.014	1.300	129.4	108.9	-35.3	107.5	113.4	-61.7
3.237	1.400	-9.9	-12.3	59.1	-45.2	-121.5	167.9
4.195	1.600	15.4	86.7	-43.1	72.1	143.4	-32.6
5.037	1.800	96.2	144.3	-102.0	97.5	72.1	-54.5
6.058	2.000	99.3	99.2	-142.4	68.3	44.1	-59.5

REC = 50

HEADING = 165. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
1.251	.200	1.585E-01	3.598E-02	9.949E-01	6.590E-04	6.762E-03	2.836E-05
1.251	.250	1.585E-01	4.167E-02	1.016E+00	3.948E-03	1.301E-02	1.538E-04
1.251	.300	1.288E-01	3.639E-02	1.027E+00	2.288E-02	2.444E-02	5.515E-04
1.251	.350	9.566E-02	2.571E-02	1.019E+00	1.510E-01	4.380E-02	1.443E-03
1.251	.400	7.289E-02	1.035E-02	9.888E-01	1.949E-01	6.982E-02	9.181E-04
1.251	.450	5.351E-02	8.435E-03	1.049E+00	7.609E-02	1.000E-01	6.645E-04
1.251	.500	3.676E-02	5.655E-03	1.201E+00	4.304E-02	1.462E-01	8.271E-04
1.251	.550	2.262E-02	2.888E-03	1.425E+00	3.044E-02	1.801E-01	9.356E-04
1.251	.600	1.089E-02	1.071E-03	1.589E+00	1.599E-02	1.797E-01	8.013E-04
1.251	.625	5.701E-03	5.553E-04	1.306E+00	1.110E-02	1.479E-01	7.138E-04
1.251	.650	3.944E-03	2.332E-04	7.914E-01	7.501E-03	1.039E-01	6.226E-04
1.251	.675	2.203E-03	6.492E-05	3.492E-01	4.023E-03	6.521E-02	5.292E-04
1.251	.700	1.211E-03	1.831E-05	1.059E-01	2.971E-03	3.782E-02	4.146E-04
1.251	.725	6.219E-04	3.989E-05	1.537E-02	1.487E-03	2.066E-02	2.722E-04
1.251	.750	2.909E-04	7.782E-05	2.757E-04	7.696E-04	9.342E-03	1.619E-04
1.251	.800	4.335E-05	1.192E-04	1.241E-02	6.141E-04	1.061E-03	3.756E-05
1.251	.850	1.911E-05	8.637E-05	1.069E-02	8.522E-04	2.383E-04	6.577E-06
1.251	.900	1.829E-06	3.391E-05	3.504E-03	6.292E-04	8.003E-04	1.087E-05
1.251	.950	1.994E-07	5.237E-06	5.276E-04	2.341E-04	5.231E-04	1.053E-05
1.251	1.000	7.519E-07	2.622E-06	6.238E-05	6.008E-06	1.344E-04	4.146E-06
1.251	1.050	2.772E-06	3.467E-06	4.559E-05	3.203E-05	1.542E-05	1.337E-06
1.251	1.100	2.692E-06	2.284E-06	1.071E-05	4.435E-05	1.734E-05	2.279E-06
1.251	1.150	2.172E-06	2.193E-06	1.330E-05	1.754E-05	1.713E-06	1.860E-06
1.251	1.200	7.641E-07	3.379E-06	9.166E-06	2.015E-05	2.449E-05	8.136E-07
1.251	1.250	3.065E-07	2.018E-06	5.949E-06	4.756E-05	2.962E-05	1.108E-06
1.251	1.300	1.943E-06	8.234E-07	3.953E-05	2.568E-05	1.024E-05	1.034E-06
1.251	1.400	3.886E-08	8.017E-07	6.296E-06	1.067E-05	3.259E-05	6.024E-07
1.251	1.500	6.506E-07	3.606E-07	1.204E-05	4.227E-06	1.039E-05	1.883E-07
1.251	1.600	1.131E-07	5.112E-08	2.472E-06	5.259E-07	6.073E-06	5.330E-08
1.251	1.700	8.212E-08	2.403E-08	7.782E-07	9.525E-09	2.266E-06	1.749E-08

PHASE (MOTION-HAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
1.051	200	89.7	89.4	-0	124.1	-73.2	-144.8
1.052	250	89.1	91.4	-3	150.8	-70.5	-144.9
1.053	300	87.7	92.4	-5	164.7	-69.4	-164.2
1.054	350	86.1	98.2	-8	-163.9	-66.8	-165.6
1.055	400	84.7	93.4	-1.2	-94.0	-62.4	-149.8
1.056	450	84.5	88.8	-1.2	-52.5	-55.3	-165.8
1.057	500	84.8	87.2	1.0	-53.0	-45.3	-179.8
1.058	550	86.0	86.0	9.6	-53.2	-31.2	167.4
1.059	600	89.2	91.2	33.8	-53.5	-9.0	161.8
1.060	625	89.7	93.5	53.1	-54.5	6.2	159.5
1.061	650	89.6	99.0	74.0	-56.6	19.6	156.7
1.062	675	85.4	113.6	93.1	-60.5	31.1	153.1
1.063	700	84.0	168.9	108.6	-67.8	41.5	148.9
1.064	725	82.2	-145.8	117.4	-81.7	52.0	144.7
1.065	750	81.2	-133.1	33.1	-104.3	63.1	139.5
1.066	800	89.0	-128.7	-19.4	-159.4	93.9	120.9
1.067	850	136.3	-135.6	-6.3	174.2	-126.5	53.5
1.068	900	-130.1	-149.5	2.0	162.3	-91.5	-8.9
1.069	950	-117.4	177.2	-4.7	152.4	-90.4	-36.3
1.070	1.000	75.5	91.4	-59.7	132.2	-85.2	-67.5
1.071	1.050	49.9	36.7	-119.2	-39.3	-128.6	-142.0
1.072	1.100	21.4	-20.6	-145.2	-57.5	163.8	154.1
1.073	1.150	-17.6	-94.3	115.2	-103.9	112.1	113.3
1.074	1.200	-26.9	-143.8	108.2	170.0	38.3	51.8
1.075	1.250	118.4	-177.6	-41.9	133.6	58.1	-18.3
1.076	1.300	131.0	113.2	-41.6	106.2	124.9	-63.8
1.077	1.350	-46.7	-4.9	66.6	-39.6	-117.8	167.6
1.078	1.400	146.2	69.7	-43.0	72.0	147.8	-102.0
1.079	1.450	97.0	134.2	-104.2	91.9	71.6	-63.4
1.080	1.500	105.3	121.8	-135.3	7.4	48.9	-66.7

REC = 61 HEADING = 180. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	4.224E-01 0.		9.837E-01 0.		5.691E-03 0.	
.266	.250	3.898E-01 0.		9.594E-01 0.		1.323E-02 0.	
.324	.300	3.464E-01 0.		9.247E-01 0.		2.624E-02 0.	
.382	.350	3.033E-01 0.		8.574E-01 0.		4.652E-02 0.	
.442	.400	2.592E-01 0.		7.493E-01 0.		7.412E-02 0.	
.503	.450	2.099E-01 0.		6.026E-01 0.		1.055E-01 0.	
.566	.500	1.545E-01 0.		4.356E-01 0.		1.321E-01 0.	
.629	.550	1.058E-01 0.		2.855E-01 0.		1.474E-01 0.	
.694	.600	6.412E-02 0.		1.729E-01 0.		1.475E-01 0.	
.723	.625	4.698E-02 0.		1.317E-01 0.		1.382E-01 0.	
.761	.650	3.273E-02 0.		1.008E-01 0.		1.235E-01 0.	
.795	.675	2.144E-02 0.		7.881E-02 0.		1.042E-01 0.	
.829	.700	1.302E-02 0.		6.349E-02 0.		7.633E-02 0.	
.863	.725	7.471E-03 0.		5.268E-02 0.		5.065E-02 0.	
.893	.750	3.481E-03 0.		4.554E-02 0.		2.764E-02 0.	
.963	.800	4.835E-04 0.		4.393E-02 0.		1.653E-03 0.	
1.040	.850	1.332E-05 0.		8.477E-02 0.		6.511E-03 0.	
1.112	.900	4.995E-06 0.		8.770E-02 0.		1.849E-02 0.	
1.187	.950	3.786E-06 0.		2.020E-02 0.		1.530E-02 0.	
1.262	1.000	2.649E-05 0.		6.813E-04 0.		5.477E-03 0.	
1.339	1.050	3.132E-05 0.		2.074E-03 0.		5.009E-04 0.	
1.417	1.100	1.499E-05 0.		1.423E-03 0.		8.369E-04 0.	
1.497	1.150	7.988E-06 0.		1.489E-04 0.		1.018E-03 0.	
1.573	1.200	6.289E-06 0.		1.166E-03 0.		1.612E-04 0.	
1.660	1.250	9.893E-07 0.		1.167E-03 0.		1.745E-04 0.	
1.743	1.300	1.021E-06 0.		2.458E-04 0.		5.260E-04 0.	
1.914	1.400	9.776E-06 0.		2.765E-04 0.		6.266E-05 0.	
2.271	1.600	1.377E-06 0.		1.542E-05 0.		1.880E-05 0.	
2.651	1.800	1.280E-07 0.		4.088E-06 0.		6.400E-06 0.	
3.050	2.000	4.016E-07 0.		5.786E-06 0.		4.127E-06 0.	

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SNAY	HEAVE	ROLL	PITCH	YAW
.210	.200	89.3	0.0	.2	0.0	-87.9	0.0
.266	.250	88.5	0.0	.1	0.0	-85.8	0.0
.324	.300	87.3	0.0	-.2	0.0	-83.9	0.0
.382	.350	85.7	0.0	-.4	0.0	-81.7	0.0
.442	.400	83.9	0.0	-.8	0.0	-78.9	0.0
.503	.450	82.2	0.0	-1.7	0.0	-75.1	0.0
.565	.500	80.5	0.0	-3.8	0.0	-70.5	0.0
.629	.550	79.4	0.0	-8.0	0.0	-65.0	0.0
.694	.600	78.8	0.0	-16.2	0.0	-58.2	0.0
.728	.625	78.8	0.0	-22.4	0.0	-54.2	0.0
.761	.650	78.9	0.0	-30.4	0.0	-49.7	0.0
.795	.675	79.4	0.0	-39.8	0.0	-44.6	0.0
.829	.700	80.3	0.0	-50.5	0.0	-38.7	0.0
.863	.725	81.7	0.0	-62.2	0.0	-32.0	0.0
.893	.750	83.9	0.0	-75.4	0.0	-23.8	0.0
.968	.800	93.7	0.0	-103.6	0.0	11.8	0.0
1.040	.850	146.3	0.0	-113.5	0.0	173.0	0.0
1.112	.900	-149.9	0.0	-100.9	0.0	-159.5	0.0
1.187	.950	91.7	0.0	-91.0	0.0	-139.1	0.0
1.262	1.000	61.7	0.0	-69.5	0.0	-118.2	0.0
1.339	1.050	44.3	0.0	131.4	0.0	-65.7	0.0
1.417	1.100	10.4	0.0	132.1	0.0	41.0	0.0
1.497	1.150	-47.7	0.0	53.9	0.0	66.7	0.0
1.573	1.200	-93.3	0.0	3.1	0.0	91.2	0.0
1.660	1.250	-118.7	0.0	3.9	0.0	-116.6	0.0
1.743	1.300	70.2	0.0	10.1	0.0	-104.0	0.0
1.914	1.400	-14.6	0.0	154.4	0.0	-46.5	0.0
2.271	1.600	87.5	0.0	-22.2	0.0	-124.7	0.0
2.651	1.800	122.8	0.0	-23.4	0.0	-113.3	0.0
3.050	2.000	158.0	0.0	-17.3	0.0	156.9	0.0

REC = 62 HEADING = 180. DEG SHIP SPEED = 10. KNOTS
 RAD (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	3.467E-01 0.	9.824E-01 0.	6.106E-03 0.	1.364E-02 0.	1.364E-02 0.	1.364E-02 0.
.283	.250	3.034E-01 0.	9.664E-01 0.	2.652E-02 0.	4.716E-02 0.	4.716E-02 0.	4.716E-02 0.
.347	.300	2.618E-01 0.	8.805E-01 0.	7.824E-01 0.	1.076E-01 0.	1.076E-01 0.	1.076E-01 0.
.414	.350	2.209E-01 0.	7.824E-01 0.	5.120E-01 0.	1.624E-01 0.	1.624E-01 0.	1.624E-01 0.
.484	.400	1.802E-01 0.	6.489E-01 0.	3.178E-01 0.	1.691E-01 0.	1.691E-01 0.	1.691E-01 0.
.555	.450	1.400E-01 0.	5.120E-01 0.	2.819E-01 0.	1.606E-01 0.	1.606E-01 0.	1.606E-01 0.
.631	.500	1.017E-01 0.	4.026E-01 0.	2.442E-01 0.	1.435E-01 0.	1.435E-01 0.	1.435E-01 0.
.709	.550	6.751E-02 0.	3.178E-01 0.	1.933E-01 0.	1.187E-01 0.	1.187E-01 0.	1.187E-01 0.
.783	.600	3.943E-02 0.	2.819E-01 0.	1.472E-01 0.	8.897E-02 0.	8.897E-02 0.	8.897E-02 0.
.831	.625	2.823E-02 0.	2.442E-01 0.	9.582E-02 0.	5.901E-02 0.	5.901E-02 0.	5.901E-02 0.
.872	.650	1.911E-02 0.	1.933E-01 0.	5.085E-02 0.	3.139E-02 0.	3.139E-02 0.	3.139E-02 0.
.914	.675	1.209E-02 0.	1.472E-01 0.	5.049E-02 0.	2.093E-03 0.	2.093E-03 0.	2.093E-03 0.
.957	.700	6.978E-03 0.	1.127E-02 0.	4.575E-02 0.	6.244E-03 0.	6.244E-03 0.	6.244E-03 0.
1.001	.725	3.505E-03 0.	1.351E-02 0.	2.113E-03 0.	4.747E-03 0.	4.747E-03 0.	4.747E-03 0.
1.045	.750	1.518E-03 0.	2.113E-03 0.	1.553E-03 0.	1.553E-03 0.	1.553E-03 0.	1.553E-03 0.
1.136	.800	1.647E-04 0.	4.523E-04 0.	1.195E-04 0.	1.195E-04 0.	1.195E-04 0.	1.195E-04 0.
1.223	.850	1.243E-05 0.	9.773E-05 0.	1.943E-04 0.	1.943E-04 0.	1.943E-04 0.	1.943E-04 0.
1.325	.900	1.127E-05 0.	3.183E-06 0.	1.669E-04 0.	1.669E-04 0.	1.669E-04 0.	1.669E-04 0.
1.424	.950	8.743E-06 0.	2.273E-04 0.	2.090E-05 0.	2.090E-05 0.	2.090E-05 0.	2.090E-05 0.
1.525	1.000	5.826E-06 0.	3.425E-04 0.	1.140E-04 0.	1.140E-04 0.	1.140E-04 0.	1.140E-04 0.
1.629	1.050	8.531E-06 0.	1.140E-04 0.	2.335E-05 0.	2.335E-05 0.	2.335E-05 0.	2.335E-05 0.
1.735	1.100	1.101E-05 0.	5.826E-06 0.	5.826E-06 0.	5.826E-06 0.	5.826E-06 0.	5.826E-06 0.
1.845	1.150	2.080E-05 0.	2.265E-06 0.	3.795E-07 0.	3.795E-07 0.	3.795E-07 0.	3.795E-07 0.
1.955	1.200	2.510E-06 0.	1.477E-06 0.	7.043E-06 0.	7.043E-06 0.	7.043E-06 0.	7.043E-06 0.
2.071	1.250	6.389E-06 0.	1.477E-06 0.	3.733E-06 0.	3.733E-06 0.	3.733E-06 0.	3.733E-06 0.
2.188	1.300	2.265E-06 0.	1.477E-06 0.	4.003E-07 0.	4.003E-07 0.	4.003E-07 0.	4.003E-07 0.
2.423	1.400	1.477E-06 0.	1.477E-06 0.				
2.944	1.600	3.795E-07 0.	1.477E-06 0.				
3.502	1.800	3.838E-07 0.	1.477E-06 0.				
4.102	2.000	4.003E-07 0.	1.477E-06 0.				

PHASE (MOTION-WAVEHT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	89.4	0.0	.2	0.0	-84.3	0.0
.283	.250	88.6	0.0	-.0	0.0	-82.2	0.0
.34K	.300	87.3	0.0	-.3	0.0	-80.3	0.0
.414	.350	85.7	0.0	-.7	0.0	-77.9	0.0
.484	.400	84.0	0.0	-1.3	0.0	-74.6	0.0
.555	.450	82.4	0.0	-2.7	0.0	-70.0	0.0
.631	.500	81.2	0.0	-5.2	0.0	-64.3	0.0
.709	.550	80.7	0.0	-9.3	0.0	-57.2	0.0
.789	.600	80.9	0.0	-14.4	0.0	-47.8	0.0
.871	.625	81.3	0.0	-16.5	0.0	-42.1	0.0
.822	.650	82.0	0.0	-17.8	0.0	-35.7	0.0
.914	.675	83.0	0.0	-18.2	0.0	-28.4	0.0
.957	.700	83.4	0.0	-18.3	0.0	-20.0	0.0
1.001	.725	83.6	0.0	-19.1	0.0	-9.0	0.0
1.045	.750	83.1	0.0	-27.1	0.0	3.7	0.0
1.136	.800	97.4	0.0	-69.6	0.0	40.2	0.0
1.229	.850	140.1	0.0	-63.2	0.0	-157.9	0.0
1.323	.900	178.3	0.0	-44.7	0.0	-133.6	0.0
1.414	.950	145.4	0.0	-23.2	0.0	-116.5	0.0
1.523	1.000	86.9	0.0	5.4	0.0	-98.4	0.0
1.629	1.050	28.1	0.0	53.4	0.0	-62.3	0.0
1.735	1.100	1.7	0.0	122.9	0.0	60.1	0.0
1.845	1.150	-172.1	0.0	-43.8	0.0	83.7	0.0
1.955	1.200	-172.1	0.0	-17.2	0.0	105.8	0.0
2.071	1.250	165.8	0.0	-5.5	0.0	-175.9	0.0
2.183	1.300	133.7	0.0	-4.3	0.0	-109.1	0.0
2.293	1.400	-13.7	0.0	173.4	0.0	-108.7	0.0
2.394	1.500	92.7	0.0	-46.9	0.0	-141.0	0.0
2.502	1.600	118.2	0.0	-53.4	0.0	129.2	0.0
2.612	2.000	124.4	0.0	-79.7	0.0	100.7	0.0

REC = 63 HEADING = 180. DEG SHIP SPEED = 15. KNOTS
 RAO (MOTION/NAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
231	200	2.874E-01	0.	9.829E-01	0.	6.506E-03	0.
299	250	2.421E-01	0.	9.775E-01	0.	1.389E-02	0.
300	300	2.019E-01	0.	9.601E-01	0.	2.672E-02	0.
371	350	1.649E-01	0.	8.138E-01	0.	4.734E-02	0.
446	400	1.306E-01	0.	8.321E-01	0.	7.594E-02	0.
525	450	9.871E-02	0.	7.258E-01	0.	1.082E-01	0.
603	500	6.987E-02	0.	5.593E-01	0.	1.466E-01	0.
697	550	4.995E-02	0.	5.216E-01	0.	1.788E-01	0.
783	600	2.509E-02	0.	5.951E-01	0.	1.843E-01	0.
883	625	1.737E-02	0.	5.556E-01	0.	1.732E-01	0.
933	650	1.103E-02	0.	4.988E-01	0.	1.334E-01	0.
1034	675	6.303E-03	0.	3.913E-01	0.	1.227E-01	0.
1086	700	3.225E-03	0.	2.298E-01	0.	8.339E-02	0.
1139	725	1.486E-03	0.	8.195E-02	0.	4.544E-02	0.
1193	750	6.183E-04	0.	1.469E-02	0.	2.085E-02	0.
1304	800	6.726E-05	0.	2.915E-02	0.	1.455E-03	0.
1419	850	1.195E-05	0.	4.081E-02	0.	1.023E-03	0.
1538	900	1.675E-05	0.	2.256E-02	0.	2.429E-03	0.
1661	950	9.022E-06	0.	7.298E-03	0.	1.823E-03	0.
1738	1000	3.632E-06	0.	2.806E-04	0.	5.846E-04	0.
1919	1050	1.79E-06	0.	2.064E-04	0.	3.066E-05	0.
2053	1100	7.815E-06	0.	2.157E-04	0.	1.139E-04	0.
2192	1150	8.269E-07	0.	2.469E-06	0.	1.01E-04	0.
2334	1200	2.421E-07	0.	5.039E-05	0.	3.466E-05	0.
2480	1250	1.201E-06	0.	6.374E-05	0.	3.127E-06	0.
2631	1300	1.632E-06	0.	1.401E-05	0.	1.181E-05	0.
2793	1400	9.122E-07	0.	8.175E-06	0.	8.399E-06	0.
3065	1600	3.06E-07	0.	1.316E-05	0.	1.781E-05	0.
4053	1800	4.205E-07	0.	8.702E-06	0.	9.517E-06	0.
5151	2000	3.228E-07	0.	3.443E-06	0.	4.685E-06	0.

PHASE (MOTION-AVANT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
2.27	.200	89.4	0.0	1	0.0	-80.8	0.0
.299	.250	89.7	0.0	-2	0.0	-78.4	0.0
.371	.300	87.4	0.0	-5	0.0	-76.6	0.0
.443	.350	85.8	0.0	-9	0.0	-74.1	0.0
.515	.400	84.1	0.0	-13	0.0	-70.2	0.0
.587	.450	82.8	0.0	-17	0.0	-64.8	0.0
.659	.500	82.4	0.0	-21	0.0	-57.8	0.0
.731	.550	82.5	0.0	-25	0.0	-48.4	0.0
.803	.600	83.4	0.0	-29	0.0	-35.7	0.0
.875	.635	84.3	0.0	-33	0.0	-28.0	0.0
.947	.675	85.9	0.0	-37	0.0	-18.0	0.0
1.019	.700	87.6	0.0	-41	0.0	-5.8	0.0
1.091	.725	88.6	0.0	-45	0.0	7.8	0.0
1.163	.750	88.1	0.0	-49	0.0	21.6	0.0
1.235	.800	93.9	0.0	-53	0.0	35.0	0.0
1.307	.850	131.5	0.0	-57	0.0	74.9	0.0
1.379	.900	173.5	0.0	-61	0.0	-151.8	0.0
1.451	.950	159.0	0.0	-65	0.0	-121.3	0.0
1.523	1.000	63.4	0.0	-69	0.0	-105.3	0.0
1.595	1.050	33.6	0.0	-73	0.0	-83.5	0.0
1.667	1.100	24.1	0.0	-77	0.0	-23.9	0.0
1.739	1.150	6.6	0.0	-81	0.0	78.4	0.0
1.811	1.200	177.3	0.0	-85	0.0	90.5	0.0
1.883	1.250	153.4	0.0	-89	0.0	80.0	0.0
1.955	1.300	110.2	0.0	-93	0.0	-20.7	0.0
2.027	1.350	-11.6	0.0	-97	0.0	-69.8	0.0
2.099	1.400	145.2	0.0	-101	0.0	-116.8	0.0
2.171	1.450	120.9	0.0	-105	0.0	-167.0	0.0
2.243	1.500	126.6	0.0	-109	0.0	125.7	0.0
2.315	1.550		0.0	-113	0.0	101.7	0.0

REC = 64 HEADING = 180. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.242	.200	2.404E-01 0.	9.860E-01 0.	9.860E-01 0.	9.860E-01 0.	6.875E-03 0.	
.315	.250	1.956E-01 0.	9.936E-01 0.	9.936E-01 0.	9.936E-01 0.	1.394E-02 0.	
.39+	.300	1.581E-01 0.	9.844E-01 0.	9.844E-01 0.	9.844E-01 0.	2.649E-02 0.	
.479	.350	1.257E-01 0.	9.584E-01 0.	9.584E-01 0.	9.584E-01 0.	4.695E-02 0.	
.563	.400	9.708E-02 0.	8.985E-01 0.	8.985E-01 0.	8.985E-01 0.	7.519E-02 0.	
.663	.450	7.170E-02 0.	8.624E-01 0.	8.624E-01 0.	8.624E-01 0.	1.104E-01 0.	
.762	.500	4.947E-02 0.	8.884E-01 0.	8.884E-01 0.	8.884E-01 0.	1.511E-01 0.	
.863	.550	3.074E-02 0.	9.690E-01 0.	9.690E-01 0.	9.690E-01 0.	1.842E-01 0.	
.978	.600	1.590E-02 0.	1.018E+00 0.	1.018E+00 0.	1.018E+00 0.	1.885E-01 0.	
1.035	.625	1.009E-02 0.	9.697E-01 0.	9.697E-01 0.	9.697E-01 0.	1.717E-01 0.	
1.094	.650	5.836E-03 0.	7.470E-01 0.	7.470E-01 0.	7.470E-01 0.	1.353E-01 0.	
1.153	.675	3.127E-03 0.	4.114E-01 0.	4.114E-01 0.	4.114E-01 0.	8.973E-02 0.	
1.214	.700	1.582E-03 0.	1.472E-01 0.	1.472E-01 0.	1.472E-01 0.	5.124E-02 0.	
1.277	.725	7.551E-04 0.	2.754E-02 0.	2.754E-02 0.	2.754E-02 0.	2.575E-02 0.	
1.341	.750	3.272E-04 0.	1.413E-03 0.	1.413E-03 0.	1.413E-03 0.	1.114E-02 0.	
1.472	.800	4.267E-05 0.	2.142E-02 0.	2.142E-02 0.	2.142E-02 0.	8.703E-04 0.	
1.603	.850	1.258E-05 0.	2.262E-02 0.	2.262E-02 0.	2.262E-02 0.	5.481E-04 0.	
1.750	.900	7.376E-06 0.	8.302E-03 0.	8.302E-03 0.	8.302E-03 0.	1.305E-03 0.	
1.898	.950	5.512E-07 0.	9.278E-04 0.	9.278E-04 0.	9.278E-04 0.	9.347E-04 0.	
2.050	1.000	4.198E-06 0.	2.357E-05 0.	2.357E-05 0.	2.357E-05 0.	2.304E-04 0.	
2.207	1.050	5.890E-06 0.	1.187E-04 0.	1.187E-04 0.	1.187E-04 0.	1.813E-05 0.	
2.370	1.100	3.322E-06 0.	4.284E-05 0.	4.284E-05 0.	4.284E-05 0.	2.271E-05 0.	
2.539	1.150	9.767E-07 0.	8.784E-06 0.	8.784E-06 0.	8.784E-06 0.	1.917E-05 0.	
2.711	1.200	4.215E-07 0.	2.800E-05 0.	2.800E-05 0.	2.800E-05 0.	3.971E-06 0.	
2.890	1.250	8.424E-07 0.	1.799E-05 0.	1.799E-05 0.	1.799E-05 0.	6.507E-06 0.	
3.074	1.300	2.015E-06 0.	3.302E-05 0.	3.302E-05 0.	3.302E-05 0.	5.774E-06 0.	
3.457	1.400	5.872E-07 0.	1.282E-05 0.	1.282E-05 0.	1.282E-05 0.	2.195E-05 0.	
4.287	1.600	3.026E-07 0.	1.178E-05 0.	1.178E-05 0.	1.178E-05 0.	1.734E-05 0.	
5.203	1.800	2.103E-07 0.	5.817E-06 0.	5.817E-06 0.	5.817E-06 0.	6.310E-06 0.	
6.201	2.000	1.869E-07 0.	1.999E-06 0.	1.999E-06 0.	1.999E-06 0.	2.728E-06 0.	

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.242	.200	89.5	0.0	.1	0.0	-77.2	0.0
.316	.250	88.8	0.0	-.3	0.0	-74.6	0.0
.394	.300	87.5	0.0	-.6	0.0	-72.9	0.0
.479	.350	85.9	0.0	-1.1	0.0	-70.3	0.0
.563	.400	84.4	0.0	-1.8	0.0	-65.9	0.0
.653	.450	83.7	0.0	-2.8	0.0	-59.6	0.0
.762	.500	83.6	0.0	-3.1	0.0	-50.9	0.0
.868	.550	84.4	0.0	.2	0.0	-38.8	0.0
.973	.600	85.6	0.0	12.4	0.0	-21.5	0.0
1.035	.625	88.3	0.0	25.2	0.0	-9.1	0.0
1.094	.650	89.2	0.0	42.5	0.0	4.9	0.0
1.153	.675	89.6	0.0	61.6	0.0	18.8	0.0
1.214	.700	85.9	0.0	78.8	0.0	31.3	0.0
1.277	.725	84.9	0.0	88.8	0.0	42.8	0.0
1.341	.750	84.2	0.0	26.9	0.0	54.9	0.0
1.422	.800	95.2	0.0	-27.6	0.0	93.7	0.0
1.503	.850	152.2	0.0	-15.3	0.0	-143.5	0.0
1.753	.900	-179.3	0.0	-3.3	0.0	-104.4	0.0
1.893	.950	138.3	0.0	3.2	0.0	-85.4	0.0
2.050	1.000	47.8	0.0	-127.9	0.0	-72.5	0.0
2.227	1.050	37.7	0.0	-153.2	0.0	-91.2	0.0
2.370	1.100	19.6	0.0	-174.7	0.0	112.9	0.0
2.539	1.150	-25.7	0.0	84.5	0.0	103.0	0.0
2.711	1.200	-104.6	0.0	44.4	0.0	37.8	0.0
2.890	1.250	143.0	0.0	-14.1	0.0	39.4	0.0
3.074	1.300	123.2	0.0	-35.8	0.0	-173.8	0.0
3.457	1.400	-37.6	0.0	108.1	0.0	-99.2	0.0
4.287	1.500	165.9	0.0	-19.2	0.0	-166.9	0.0
5.233	1.600	120.5	0.0	-58.7	0.0	125.2	0.0
6.201	1.700	129.2	0.0	-76.8	0.0	103.7	0.0

REC = 65 HEADING = 180. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVENT)**2

WE	H.	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.253	.200	2.024E-01 0.	9.949E-01 0.	7.102E-03 0.	1.378E-02 0.	1.378E-02 0.	1.378E-02 0.
.332	.330	1.597E-01 0.	1.015E+00 0.	2.591E-02 0.	4.598E-02 0.	4.598E-02 0.	4.598E-02 0.
.413	.300	1.255E-01 0.	1.024E+00 0.	1.013E+00 0.	1.107E-01 0.	1.107E-01 0.	1.107E-01 0.
.511	.350	9.746E-02 0.	9.842E-01 0.	1.048E+00 0.	1.526E-01 0.	1.526E-01 0.	1.526E-01 0.
.610	.400	7.358E-02 0.	1.048E+00 0.	1.420E+00 0.	1.730E-01 0.	1.730E-01 0.	1.730E-01 0.
.715	.450	5.323E-02 0.	1.048E+00 0.	1.507E+00 0.	1.349E-01 0.	1.349E-01 0.	1.349E-01 0.
.823	.500	3.583E-02 0.	1.048E+00 0.	1.133E+00 0.	9.008E-02 0.	9.008E-02 0.	9.008E-02 0.
.947	.550	2.133E-02 0.	1.048E+00 0.	5.126E-01 0.	5.415E-02 0.	5.415E-02 0.	5.415E-02 0.
1.073	.600	9.611E-03 0.	1.048E+00 0.	2.369E-01 0.	2.992E-02 0.	2.992E-02 0.	2.992E-02 0.
1.138	.625	5.720E-03 0.	1.048E+00 0.	3.918E-03 0.	1.480E-02 0.	1.480E-02 0.	1.480E-02 0.
1.205	.650	3.243E-03 0.	1.048E+00 0.	2.038E-03 0.	6.232E-03 0.	6.232E-03 0.	6.232E-03 0.
1.273	.675	1.787E-03 0.	1.048E+00 0.	1.475E-02 0.	4.827E-04 0.	4.827E-04 0.	4.827E-04 0.
1.343	.700	9.355E-04 0.	1.048E+00 0.	9.266E-03 0.	8.658E-04 0.	8.658E-04 0.	8.658E-04 0.
1.415	.725	4.577E-04 0.	1.048E+00 0.	2.274E-03 0.	3.985E-04 0.	3.985E-04 0.	3.985E-04 0.
1.493	.750	2.058E-04 0.	1.048E+00 0.	4.592E-05 0.	1.007E-05 0.	1.007E-05 0.	1.007E-05 0.
1.569	.800	3.055E-05 0.	1.048E+00 0.	3.288E-06 0.	1.833E-06 0.	1.833E-06 0.	1.833E-06 0.
1.793	.850	1.870E-06 0.	1.048E+00 0.	1.659E-06 0.	5.189E-06 0.	5.189E-06 0.	5.189E-06 0.
1.963	.900	1.429E-06 0.	1.048E+00 0.	1.772E-06 0.	3.128E-06 0.	3.128E-06 0.	3.128E-06 0.
2.135	.950	6.657E-08 0.	1.048E+00 0.	2.094E-06 0.	1.311E-06 0.	1.311E-06 0.	1.311E-06 0.
2.313	1.000	1.505E-06 0.	1.048E+00 0.	1.322E-05 0.	2.195E-06 0.	2.195E-06 0.	2.195E-06 0.
2.497	1.050	3.273E-06 0.	1.048E+00 0.	8.540E-07 0.	1.296E-06 0.	1.296E-06 0.	1.296E-06 0.
2.683	1.100	2.204E-06 0.	1.048E+00 0.	3.712E-06 0.	4.108E-06 0.	4.108E-06 0.	4.108E-06 0.
2.866	1.150	1.670E-06 0.	1.048E+00 0.	1.199E-06 0.	1.701E-06 0.	1.701E-06 0.	1.701E-06 0.
3.090	1.200	8.688E-08 0.	1.048E+00 0.				
3.301	1.250	1.170E-06 0.	1.048E+00 0.				
3.513	1.300	1.907E-06 0.	1.048E+00 0.				
3.972	1.400	4.540E-07 0.	1.048E+00 0.				
4.959	1.500	2.596E-07 0.	1.048E+00 0.				
6.055	1.600	1.392E-07 0.	1.048E+00 0.				
7.252	2.000	1.216E-07 0.	1.048E+00 0.				

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.255	.200	89.6	0.0	-1.0	0.0	-73.2	0.0
.332	.250	84.9	0.0	-1.3	0.0	-70.7	0.0
.418	.300	87.6	0.0	-1.5	0.0	-69.4	0.0
.511	.350	86.0	0.0	-1.9	0.0	-66.6	0.0
.610	.400	84.7	0.0	-1.3	0.0	-61.9	0.0
.716	.450	84.6	0.0	-1.3	0.0	-54.4	0.0
.823	.500	85.0	0.0	1.4	0.0	-43.8	0.0
.947	.550	86.5	0.0	11.1	0.0	-28.9	0.0
1.075	.600	89.8	0.0	38.5	0.0	-3.9	0.0
1.133	.655	91.1	0.0	59.0	0.0	10.6	0.0
1.205	.700	88.7	0.0	80.1	0.0	23.8	0.0
1.275	.755	86.4	0.0	98.6	0.0	35.2	0.0
1.343	.800	84.4	0.0	112.8	0.0	45.9	0.0
1.415	.850	83.0	0.0	115.4	0.0	57.0	0.0
1.488	.900	83.0	0.0	-20.6	0.0	69.2	0.0
1.540	.950	93.8	0.0	-17.3	0.0	111.5	0.0
1.593	.000	171.3	0.0	-3.7	0.0	-111.7	0.0
1.640	.050	-131.6	0.0	3.6	0.0	-87.2	0.0
1.693	.100	133.0	0.0	-12.0	0.0	-79.0	0.0
1.745	.150	65.4	0.0	-39.9	0.0	-30.0	0.0
1.797	.200	40.7	0.0	-131.4	0.0	-165.2	0.0
1.849	.250	6.9	0.0	-174.4	0.0	153.8	0.0
1.901	.300	-26.5	0.0	107.9	0.0	54.5	0.0
1.953	.350	-13.5	0.0	80.0	0.0	44.3	0.0
2.005	.400	128.2	0.0	-42.4	0.0	75.3	0.0
2.057	.450	131.9	0.0	-35.0	0.0	172.6	0.0
2.109	.500	-33.8	0.0	108.9	0.0	-93.6	0.0
2.161	.550	166.4	0.0	-18.6	0.0	-168.6	0.0
2.213	.600	119.8	0.0	-59.4	0.0	124.8	0.0
2.265	.650	134.4	0.0	-69.5	0.0	109.4	0.0

ND OF DATA

8911

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

FFG 7

RAO TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

FFG 7

NO. OF RECORDS = 65 NO. OF FREQS = 30

REC = 1 HEADING = 0. DEG SHIP SPEED = 5. KNOTS

RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	1.135E+00	8.377E-15	9.867E-01	3.909E-17	4.859E-03	2.692E-17
.234	.250	1.135E+00	8.328E-15	9.653E-01	1.033E-16	1.177E-02	6.777E-17
.276	.300	1.125E+00	8.195E-15	9.280E-01	2.413E-16	2.383E-02	1.452E-16
.313	.350	1.097E+00	9.000E-15	8.797E-01	5.645E-16	4.335E-02	3.394E-16
.353	.400	1.041E+00	8.883E-15	8.065E-01	1.230E-15	6.945E-02	6.033E-16
.397	.450	9.517E-01	8.048E-15	7.338E-01	2.519E-15	1.011E-01	9.167E-16
.434	.500	8.275E-01	6.793E-15	5.742E-01	4.862E-15	1.333E-01	1.245E-15
.471	.550	6.739E-01	5.361E-15	4.275E-01	8.806E-15	1.597E-01	1.536E-15
.506	.600	5.034E-01	3.949E-15	2.806E-01	1.498E-14	1.691E-01	1.721E-15
.522	.655	4.175E-01	3.307E-15	2.133E-01	1.879E-14	1.666E-01	1.755E-15
.533	.685	3.347E-01	2.728E-15	1.535E-01	2.323E-14	1.585E-01	1.741E-15
.555	.695	2.576E-01	2.224E-15	1.028E-01	2.822E-14	1.450E-01	1.673E-15
.571	.700	1.889E-01	1.799E-15	6.270E-02	3.349E-14	1.271E-01	1.565E-15
.587	.705	1.301E-01	1.452E-15	3.135E-02	3.843E-14	1.060E-01	1.409E-15
.602	.700	8.287E-02	1.176E-15	1.421E-02	4.456E-14	8.332E-02	1.217E-15
.632	.800	2.315E-02	7.813E-16	2.063E-04	5.444E-14	4.118E-02	7.793E-16
.660	.800	2.311E-03	5.127E-16	3.915E-03	7.584E-14	1.358E-02	3.620E-16
.687	.900	3.103E-03	2.095E-15	9.375E-03	3.916E-13	4.358E-13	3.002E-16
.713	.900	7.730E-03	1.316E-14	8.543E-03	1.493E-12	7.661E-03	8.723E-15
.738	1.000	6.989E-03	1.836E-15	3.462E-03	1.905E-13	1.180E-02	2.864E-17
.761	1.000	2.481E-03	5.202E-16	2.226E-04	5.435E-14	9.817E-03	9.130E-18
.782	1.100	1.875E-05	1.478E-16	8.615E-04	1.265E-14	4.547E-03	1.489E-17
.803	1.100	1.237E-03	8.575E-17	2.110E-03	2.603E-15	2.358E-03	8.414E-18
.822	1.200	2.596E-03	8.461E-17	1.338E-03	3.683E-15	3.822E-03	9.138E-18
.843	1.200	1.569E-03	5.370E-17	1.422E-04	3.610E-15	4.275E-03	1.750E-17
.860	1.300	1.103E-04	2.119E-17	4.637E-04	1.181E-15	2.394E-03	1.687E-17
.886	1.400	1.110E-03	3.013E-17	4.554E-04	1.371E-15	2.546E-03	6.830E-18
.928	1.600	5.878E-04	1.346E-17	5.895E-05	7.726E-16	1.858E-03	6.797E-18
.950	1.800	5.573E-05	6.952E-18	2.435E-04	2.572E-16	7.853E-04	4.111E-18
.950	2.000	3.090E-04	4.432E-18	6.236E-05	2.102E-16	9.381E-04	3.151E-18

PHASE (MOTION-WAVEVENT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	-85.1	-90.0	.0	-100.1	93.0	-172.6
.234	.250	-89.7	-90.0	.0	-100.2	91.0	-172.5
.300	.300	-92.7	-90.1	.1	-110.9	89.4	-172.3
.313	.350	-95.2	-89.3	-.1	-116.6	87.5	-173.6
.353	.400	-97.3	-89.3	-.3	-122.5	85.8	-172.6
.397	.450	-99.3	-90.0	-.3	-127.7	84.1	-170.9
.434	.500	-101.1	-91.4	-.2	-131.7	82.3	-169.0
.471	.550	-103.0	-93.6	-.1	-134.4	80.3	-166.8
.505	.600	-105.0	-97.0	.2	-135.7	77.8	-164.4
.522	.625	-106.1	-99.2	.4	-135.8	76.4	-163.1
.539	.650	-107.4	-101.9	.6	-135.4	74.8	-161.7
.555	.675	-108.7	-105.1	.9	-134.6	72.9	-160.1
.571	.700	-110.3	-108.7	1.4	-133.1	70.8	-158.3
.587	.725	-112.2	-112.6	2.1	-130.8	68.2	-156.2
.602	.750	-114.6	-116.3	3.5	-127.6	65.0	-153.7
.622	.800	-119.9	-119.9	35.4	-115.9	55.5	-146.1
.662	.850	-123.0	-102.3	170.8	-87.9	35.4	-126.0
.687	.900	-127.2	-30.8	173.0	-33.7	-19.9	-48.8
.713	.950	81.5	134.5	172.0	133.5	-75.9	137.5
.739	1.000	74.4	168.7	167.6	172.1	-100.0	152.6
.761	1.050	69.0	-170.4	136.2	-169.9	-119.0	72.1
.782	1.100	35.4	-134.8	11.2	-147.5	-147.9	66.3
.803	1.150	-111.6	-81.4	-.6	-89.7	152.8	96.8
.822	1.200	-116.9	-43.5	-9.8	-30.3	101.5	162.0
.841	1.250	-122.7	-13.3	-48.6	-7.8	71.1	-160.3
.856	1.300	-143.7	33.8	-161.3	12.5	34.5	-133.7
.886	1.400	52.6	142.6	153.0	163.4	-81.1	-27.7
.928	1.600	-134.9	-17.5	-74.1	-7.2	75.4	177.9
.953	1.800	-18.6	-132.6	25.1	-165.2	-164.2	38.5
.950	2.000	56.1	148.6	148.6	-178.6	-80.4	-46.1

REC = 2 HEADING = 0. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	1.419E+00	9.780E-15	9.825E-01	3.747E-17	4.582E-03	1.685E-17
.217	.250	1.507E+00	1.011E-14	9.589E-01	9.710E-17	1.112E-02	5.338E-17
.253	.300	1.597E+00	1.039E-14	9.193E-01	2.210E-16	2.257E-02	1.370E-16
.286	.350	1.655E+00	1.049E-14	8.500E-01	4.628E-16	3.904E-02	2.988E-16
.315	.400	1.694E+00	1.107E-14	7.808E-01	9.525E-16	6.406E-02	6.557E-16
.344	.450	1.664E+00	1.063E-14	6.761E-01	1.823E-15	9.232E-02	1.158E-15
.369	.500	1.560E+00	9.417E-15	5.479E-01	3.219E-15	1.201E-01	1.749E-15
.391	.550	1.374E+00	7.666E-15	4.062E-01	5.168E-15	1.407E-01	2.366E-15
.411	.600	1.115E+00	5.652E-15	2.668E-01	7.449E-15	1.473E-01	2.884E-15
.421	.625	9.631E-01	4.642E-15	2.036E-01	8.459E-15	1.439E-01	3.057E-15
.428	.650	8.053E-01	3.681E-15	1.475E-01	9.319E-15	1.357E-01	3.148E-15
.436	.675	6.481E-01	2.805E-15	9.999E-02	9.847E-15	1.231E-01	3.139E-15
.443	.700	4.965E-01	2.044E-15	6.212E-02	9.944E-15	1.070E-01	3.021E-15
.449	.725	3.580E-01	1.418E-15	3.412E-02	9.544E-15	8.859E-02	2.794E-15
.455	.750	2.384E-01	9.343E-16	1.543E-02	8.946E-15	6.905E-02	2.468E-15
.464	.800	7.226E-02	3.746E-16	5.265E-04	5.796E-15	3.365E-02	1.613E-15
.471	.850	7.312E-03	2.117E-16	2.622E-03	3.008E-15	1.099E-02	7.411E-16
.475	.900	1.309E-02	2.014E-16	7.000E-03	2.094E-15	3.349E-03	1.623E-16
.479	.950	3.651E-02	1.583E-16	6.473E-03	3.299E-15	5.246E-03	2.350E-17
.479	1.000	3.743E-02	6.015E-17	2.626E-03	4.097E-15	7.679E-03	1.821E-16
.471	1.050	1.534E-02	7.194E-18	1.968E-04	4.155E-15	6.127E-03	3.198E-16
.465	1.100	1.074E-04	5.563E-17	6.408E-04	1.936E-15	2.722E-03	2.434E-16
.459	1.150	1.031E-02	1.154E-16	1.518E-03	3.309E-16	1.299E-03	7.528E-17
.444	1.200	2.627E-02	7.553E-17	9.863E-04	4.688E-16	1.958E-03	6.035E-17
.431	1.250	1.982E-02	3.079E-18	1.553E-04	9.953E-16	2.095E-03	1.869E-16
.413	1.300	1.681E-03	5.169E-17	3.088E-04	5.423E-16	1.092E-03	1.967E-16
.371	1.400	2.985E-02	8.710E-17	3.085E-04	2.978E-16	8.960E-04	5.086E-17
.256	1.600	7.721E-02	4.386E-17	6.671E-05	2.504E-16	4.476E-04	2.367E-16
.093	1.800	4.501E-01	1.781E-14	1.257E-04	1.611E-16	1.269E-04	4.351E-15
.093	2.000	1.233E+00	7.526E-15	6.177E-05	1.881E-16	7.957E-05	5.719E-16

PHASE (MOTION-AVEAENT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	-85.0	-90.1	.1	-102.1	92.6	-163.6
.217	.250	-89.5	-90.2	.1	-107.4	90.6	-166.0
.253	.300	-92.4	-90.4	.1	-113.2	89.0	-167.7
.296	.350	-94.7	-90.5	.1	-119.2	87.5	-168.3
.316	.400	-96.7	-90.4	.1	-124.8	85.3	-169.1
.344	.450	-98.5	-90.9	.3	-130.0	83.3	-168.5
.369	.500	-100.3	-92.2	.5	-134.3	81.1	-167.4
.391	.550	-102.1	-92.2	.6	-137.3	78.6	-166.0
.411	.600	-104.0	-91.2	.7	-139.0	75.6	-164.4
.420	.625	-105.0	-90.3	.8	-139.4	73.9	-163.5
.423	.650	-106.2	-101.9	.8	-139.3	71.9	-162.6
.436	.675	-107.4	-101.2	.8	-138.9	69.7	-161.6
.443	.700	-108.9	-103.4	.6	-137.9	67.2	-160.5
.449	.725	-110.6	-115.0	.1	-136.3	64.2	-159.3
.455	.750	-112.8	-122.6	1.0	-133.8	60.7	-158.0
.464	.800	-120.7	-147.7	21.9	-124.5	50.4	-154.6
.471	.850	-135.6	172.9	162.4	-103.1	29.7	-149.2
.475	.900	100.5	133.7	165.4	-60.8	-24.6	-135.7
.476	.950	83.1	119.2	163.1	-24.9	-92.0	-35.1
.478	1.000	77.1	100.0	156.4	-7.3	-107.8	14.0
.471	1.050	73.4	21.5	120.0	3.4	-123.1	25.9
.465	1.100	58.7	-52.8	1.1	15.3	-157.7	37.9
.456	1.150	-111.8	-66.0	-15.3	53.1	142.7	67.2
.444	1.200	-114.6	-73.7	-29.0	140.7	89.9	152.1
.430	1.250	-113.2	-93.8	-71.7	159.7	59.8	-173.0
.413	1.300	-130.1	103.8	-173.8	162.3	23.3	-157.7
.371	1.400	57.4	93.1	134.4	-5.3	-95.1	-14.4
.256	1.500	-121.0	-124.4	-98.6	-178.1	66.7	-167.7
.093	1.800	37.7	-68.3	4.6	-14.5	-138.7	5.3
.099	2.000	73.6	65.0	124.6	49.8	-69.1	75.3

REC = 3 HEADING = 0. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	1.793E+00	1.195E-14	9.779E-01	3.698E-17	4.191E-03	5.174E-18
.201	.200	2.053E+00	1.315E-14	9.534E-01	9.513E-17	1.044E-02	2.867E-17
.229	.300	2.348E+00	1.400E-14	9.093E-01	2.113E-16	2.110E-02	8.692E-17
.254	.300	2.661E+00	1.477E-14	8.459E-01	4.303E-16	3.724E-02	2.286E-16
.274	.400	2.962E+00	1.500E-14	7.558E-01	8.082E-16	5.809E-02	4.952E-16
.291	.400	3.213E+00	1.506E-14	6.435E-01	1.439E-15	8.254E-02	1.009E-15
.303	.500	3.353E+00	1.429E-14	5.174E-01	2.372E-15	1.063E-01	1.846E-15
.312	.500	3.336E+00	1.243E-14	3.790E-01	3.527E-15	1.230E-01	2.920E-15
.317	.600	3.092E+00	9.637E-15	2.438E-01	4.649E-15	1.269E-01	4.114E-15
.317	.655	2.878E+00	8.065E-15	1.882E-01	5.065E-15	1.230E-01	4.686E-15
.317	.650	2.603E+00	6.471E-15	1.339E-01	5.311E-15	1.151E-01	5.190E-15
.316	.675	2.274E+00	4.945E-15	9.011E-02	5.335E-15	1.036E-01	5.581E-15
.314	.700	1.903E+00	3.583E-15	5.555E-02	5.112E-15	8.939E-02	5.813E-15
.311	.725	1.507E+00	2.474E-15	3.039E-02	4.641E-15	7.345E-02	5.849E-15
.307	.750	1.103E+00	1.686E-15	1.382E-02	3.862E-15	5.703E-02	5.661E-15
.295	.800	4.194E-01	1.191E-15	5.593E-04	2.292E-15	2.770E-02	4.613E-15
.281	.850	4.751E-02	1.388E-15	2.253E-03	8.597E-16	9.038E-03	2.942E-15
.262	.900	1.229E-01	3.067E-15	5.712E-03	3.121E-16	2.369E-03	1.201E-15
.239	.950	5.554E-01	2.252E-15	5.127E-03	5.661E-16	3.224E-03	1.126E-16
.213	1.000	9.665E-01	1.657E-15	1.974E-03	1.052E-15	5.103E-03	3.445E-16
.182	1.000	8.223E-01	3.459E-17	9.308E-05	1.107E-15	4.452E-03	1.746E-15
.147	1.100	7.585E-02	5.982E-15	6.122E-04	6.313E-16	2.156E-03	3.153E-15
.103	1.100	2.337E+00	4.536E-14	1.439E-03	1.130E-16	7.419E-04	3.496E-15
.065	1.200	5.278E+01	3.193E-13	9.779E-04	2.423E-17	0.291E-04	4.029E-15
.020	1.250	5.891E+03	2.522E-11	2.602E-04	2.402E-16	1.559E-03	3.411E-14
.031	1.300	1.689E+02	1.105E-14	4.394E-04	3.192E-16	1.355E-03	2.607E-15
.143	1.400	1.313E+00	4.904E-15	2.979E-04	1.383E-16	4.970E-04	9.916E-17
.416	1.600	1.138E-02	2.375E-18	6.122E-05	5.642E-16	5.625E-04	7.553E-17
.751	1.800	1.304E-04	6.292E-17	1.214E-04	7.912E-15	4.410E-04	2.415E-18
1.149	2.000	1.523E-04	2.429E-18	5.118E-05	8.572E-17	1.134E-03	2.346E-18

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.169	.200	-84.7	-90.3	.1	-104.7	92.3	-137.7
.201	.250	-93.3	-90.4	.1	-110.2	89.9	-154.3
.229	.300	-92.1	-90.6	.1	-116.4	88.7	-158.2
.250	.350	-94.2	-91.0	.1	-122.6	87.0	-161.3
.274	.400	-95.9	-91.7	.0	-128.5	85.3	-162.5
.291	.450	-97.5	-92.5	-.2	-133.6	83.2	-163.4
.303	.500	-99.1	-93.8	-.5	-137.9	80.6	-163.5
.312	.550	-100.6	-96.0	-.8	-141.3	77.9	-163.2
.317	.600	-102.2	-99.7	-1.1	-143.6	74.7	-162.6
.317	.625	-103.1	-102.3	-1.2	-144.4	72.9	-162.3
.317	.650	-103.9	-105.8	-1.3	-145.0	70.9	-162.0
.316	.675	-104.9	-110.5	-1.3	-145.2	68.7	-161.7
.314	.700	-106.0	-117.1	-1.0	-145.1	66.3	-161.5
.311	.725	-107.4	-126.7	-.4	-144.6	63.5	-161.3
.307	.750	-109.0	-140.0	1.3	-143.6	60.2	-161.3
.296	.800	-115.1	176.2	29.4	-139.1	50.9	-161.9
.281	.850	-145.4	140.4	155.0	-126.0	33.0	-164.2
.262	.900	101.1	122.6	159.8	-20.0	-16.0	-167.6
.239	.950	86.7	112.1	157.8	-29.4	-77.6	170.1
.213	1.000	82.9	102.3	151.5	-13.5	-103.1	35.8
.182	1.050	81.9	1.6	110.9	-8.7	-119.2	23.3
.147	1.100	90.0	-77.6	-11.5	-7.7	-139.0	15.4
.109	1.150	-105.2	-89.0	-21.7	-3.8	177.1	2.0
.066	1.200	-104.0	-95.7	-41.3	162.7	118.6	-17.7
.020	1.250	-105.3	-98.3	-101.1	158.2	103.4	-16.8
.031	1.300	-113.8	95.8	177.6	145.9	72.1	-172.7
.143	1.400	67.1	74.2	130.2	9.4	-72.8	87.9
.416	1.500	-128.8	-147.1	-83.9	176.3	59.9	-174.0
.751	1.600	-19.1	-163.8	21.3	179.8	-175.6	79.9
.1149	2.000	58.8	159.5	-66.7	179.9	-63.1	-27.7

REC = 4 HEADING = 0. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/VAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.153	.200	2.317E+00	1.557E+14	9.753E-01	3.735E-17	3.819E-03	2.758E-18
.164	.200	2.871E+00	1.824E-14	9.478E-01	9.577E-17	9.634E-03	9.283E-18
.205	.300	3.605E+00	2.116E-14	9.028E-01	2.12E-16	1.969E-02	3.545E-17
.221	.300	4.543E+00	2.418E-14	8.343E-01	4.268E-16	3.439E-02	1.062E-16
.232	.400	5.715E+00	2.737E-14	7.433E-01	7.903E-16	5.365E-02	2.817E-16
.237	.400	7.143E+00	3.029E-14	6.282E-01	1.35E-15	7.527E-02	6.363E-16
.233	.500	8.826E+00	3.249E-14	4.915E-01	2.149E-15	9.533E-02	1.262E-15
.232	.500	1.072E+01	3.343E-14	3.592E-01	3.00E-15	1.089E-01	2.249E-15
.222	.600	1.272E+01	3.252E-14	2.284E-01	3.83E-15	1.11E-01	3.657E-15
.215	.600	1.370E+01	3.119E-14	1.728E-01	4.14E-15	1.084E-01	4.563E-15
.206	.600	1.461E+01	2.918E-14	1.234E-01	4.33E-15	1.01E-01	5.553E-15
.197	.600	1.540E+01	2.650E-14	8.284E-02	4.37E-15	9.219E-02	6.577E-15
.186	.700	1.601E+01	2.322E-14	5.002E-02	4.23E-15	8.029E-02	7.558E-15
.173	.700	1.636E+01	1.948E-14	2.872E-02	3.90E-15	6.696E-02	8.400E-15
.159	.750	1.626E+01	1.549E-14	1.490E-02	3.44E-15	5.332E-02	9.212E-15
.123	.800	1.389E+01	1.081E-14	8.439E-04	2.19E-15	2.840E-02	1.016E-14
.092	.800	5.862E+00	4.998E-14	3.457E-03	9.37E-16	1.123E-02	1.062E-14
.050	.900	5.320E+01	1.233E-12	7.241E-03	1.65E-16	3.471E-03	1.760E-14
.014	.900	4.121E+04	3.572E-10	5.86E-03	1.15E-16	2.899E-13	2.092E-13
.050	1.000	3.431E+02	1.973E-12	1.747E-03	5.96E-16	4.415E-03	8.460E-15
.107	1.000	7.431E+00	4.123E-15	4.64E-05	1.08E-16	4.677E-03	8.217E-15
.170	1.100	3.778E-02	3.448E-15	5.64E-04	6.95E-16	2.097E-03	1.317E-15
.233	1.100	1.156E-01	1.910E-15	1.211E-03	1.10E-16	7.014E-04	2.426E-16
.312	1.200	1.050E-01	2.906E-16	7.80E-04	1.64E-16	1.266E-03	2.791E-17
.290	1.200	2.883E-02	2.282E-18	1.044E-04	8.85E-16	1.678E-03	1.692E-16
.474	1.300	9.146E-04	7.343E-17	1.553E-04	9.65E-16	1.007E-03	1.079E-16
.658	1.400	3.246E-03	8.523E-17	2.88E-04	1.60E-14	1.224E-03	4.412E-17
1.088	1.600	3.157E-04	4.869E-18	1.857E-04	2.58E-16	1.686E-03	4.905E-18
1.602	1.800	2.559E-06	1.466E-18	4.603E-04	5.57E-18	4.506E-04	8.171E-19
2.193	2.000	5.201E-06	1.211E-19	4.000E-05	5.94E-18	8.003E-05	3.159E-19

PHASE (MOTION-AVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
153	200	-84.5	-93.4	.1	-106.5	93.4	-80.5
184	250	-89.0	-90.5	.1	-112.8	88.8	-116.4
206	300	-91.7	-92.8	.0	-119.4	87.5	-135.0
221	350	-93.7	-94.2	.0	-125.8	86.3	-143.1
232	400	-95.2	-94.9	.0	-131.8	84.5	-148.7
237	450	-95.6	-92.9	.4	-137.1	82.5	-151.7
238	500	-97.7	-94.4	.6	-141.5	80.3	-153.4
232	550	-98.8	-96.5	.9	-145.2	77.8	-154.4
222	600	-99.6	-99.6	1.1	-148.2	75.1	-155.2
215	625	-100.3	-101.8	1.2	-149.5	73.5	-155.6
206	650	-100.8	-104.5	1.1	-150.6	71.8	-156.0
197	675	-101.4	-108.0	.8	-151.5	70.1	-156.5
186	700	-101.9	-112.7	.1	-152.3	68.3	-157.1
173	725	-102.5	-119.1	2.1	-152.9	66.6	-158.0
159	750	-103.3	-129.0	6.1	-153.3	64.3	-159.0
129	800	-105.4	-171.5	57.9	-153.0	58.8	-162.3
123	850	-121.3	-123.9	149.7	-149.6	49.5	-168.3
105	900	-105.1	-104.7	146.2	-130.9	28.4	-175.8
92	950	92.3	98.2	139.8	-34.0	-19.1	-174.9
86	1000	86.8	96.2	140.8	-11.4	-81.0	172.1
83	1050	83.8	92.6	145.9	-8.6	-107.2	33.7
80	1100	80.2	-77.4	-17.1	-6.0	-134.2	18.2
76	1150	-108.5	-76.7	-20.4	10.0	163.0	22.6
73	1200	-111.5	-74.0	-26.9	141.4	98.5	163.3
70	1250	-117.1	-125.2	-48.0	158.8	55.4	-167.8
67	1300	-132.9	116.6	-174.5	166.3	28.6	-153.7
63	1400	53.0	-11.9	171.2	-11.1	-85.2	-14.5
55	1500	-133.8	-3.8	110.2	-3.0	-89.2	-169.2
52	1600	-2.6	-90.0	51.2	-127.2	-33.6	90.0
53	2000	53.8	-158.5	-174.7	-158.5	42.3	6.2

REC = 5 HEADING = 0. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.147	.200	3.339E+00	2.091E-14	9.740E-01	3.792E-17	3.434E-03	7.577E-18
.160	.250	4.147E+00	2.693E-14	9.421E-01	9.751E-17	8.633E-03	1.742E-17
.182	.300	5.444E+00	3.555E-14	8.967E-01	2.175E-16	1.802E-02	2.659E-17
.189	.350	8.454E+00	4.753E-14	8.282E-01	4.390E-16	3.178E-02	5.230E-17
.190	.400	1.264E+01	6.517E-14	7.352E-01	8.094E-16	4.933E-02	1.112E-16
.184	.450	1.954E+01	9.304E-14	6.191E-01	1.376E-15	6.863E-02	2.297E-16
.172	.500	3.225E+01	1.419E-13	4.853E-01	2.138E-15	9.599E-02	4.253E-16
.153	.550	5.771E+01	2.422E-13	3.493E-01	3.092E-15	9.663E-02	7.484E-16
.127	.600	1.203E+02	5.053E-13	2.204E-01	3.904E-15	1.116E-01	1.335E-15
.112	.625	1.913E+02	8.328E-13	1.623E-01	4.182E-15	9.923E-02	2.066E-15
.093	.650	3.330E+02	1.580E-12	1.156E-01	4.432E-15	9.400E-02	3.813E-15
.077	.675	7.107E+02	3.596E-12	7.558E-02	4.482E-15	8.629E-02	8.790E-15
.057	.700	2.667E+03	1.173E-11	4.268E-02	4.219E-15	8.258E-02	2.586E-14
.033	.725	1.424E+04	7.673E-11	2.224E-02	3.958E-15	5.989E-02	9.953E-14
.014	.750	3.452E+05	2.653E-09	7.348E-03	3.305E-15	7.968E-02	7.927E-13
.040	.800	1.746E+03	8.553E-12	2.522E-03	2.394E-15	4.023E-02	7.856E-15
.093	.850	4.294E+00	2.600E-14	3.820E-03	1.002E-15	1.339E-02	4.265E-15
.161	.900	6.214E-01	2.103E-14	5.295E-03	1.908E-16	2.571E-03	1.933E-15
.235	.950	6.005E-01	4.064E-15	4.211E-03	5.433E-16	2.770E-03	1.142E-16
.313	1.000	2.013E-01	2.353E-16	1.842E-03	1.836E-15	5.076E-03	1.545E-16
.397	1.050	3.075E-02	4.830E-17	2.194E-04	3.083E-15	4.807E-03	2.979E-16
.488	1.100	8.682E-05	1.349E-16	1.922E-04	2.993E-15	2.432E-03	1.517E-16
.583	1.150	3.918E-03	4.980E-17	7.960E-04	1.927E-15	1.324E-03	3.561E-17
.690	1.200	4.786E-03	1.673E-15	6.550E-04	2.452E-13	2.065E-03	2.791E-16
.801	1.250	1.769E-03	3.005E-17	2.518E-04	8.135E-15	2.551E-03	1.382E-17
.918	1.300	7.932E-05	1.278E-17	1.554E-04	7.430E-16	1.601E-03	1.396E-17
1.173	1.400	2.533E-04	6.453E-18	5.401E-04	2.220E-16	2.360E-03	4.735E-18
1.761	1.600	2.315E-05	7.002E-19	4.385E-04	1.592E-17	5.953E-04	1.165E-18
2.453	1.800	3.075E-07	1.033E-19	3.943E-05	4.558E-19	4.183E-05	8.299E-20
3.249	2.000	9.226E-07	2.175E-20	9.434E-07	7.436E-19	6.139E-06	3.355E-20

PHASE (MOTION-WAVE)

RE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
147	230	-84.4	-95.5	.0	-107.6	86.7	-36.9
169	250	-88.7	-90.6	.0	-114.4	87.6	-44.8
182	300	-91.3	-90.8	-1	-121.2	85.8	-65.9
189	350	-93.2	-91.2	-2	-127.7	84.4	-83.2
190	400	-94.5	-91.8	-4	-133.6	82.8	-94.5
184	450	-95.5	-92.5	-7	-138.7	81.1	-99.5
172	500	-96.3	-93.3	-9	-142.9	79.6	-97.4
153	550	-96.9	-94.2	-13	-146.4	77.3	-91.3
127	600	-97.2	-94.8	-13	-149.2	75.6	-72.6
112	625	-97.2	-94.8	-5	-150.2	75.1	-58.0
995	650	-97.4	-94.8	-6	-151.2	74.1	-43.3
977	675	-97.5	-94.5	-3	-152.0	73.2	-29.6
957	700	-97.1	-93.9	4.5	-152.8	77.4	-16.9
935	725	-97.6	-93.8	4.2	-153.2	70.8	-10.9
914	750	-97.5	-93.5	34.2	-154.1	87.4	-5.3
840	800	-102.1	-93.6	84.7	-155.2	72.5	-27.0
993	850	-121.9	-93.4	131.8	-149.5	56.5	-166.2
163	900	101.6	109.5	150.4	-105.2	12.2	-175.1
235	950	86.8	107.5	159.6	-29.5	-63.2	163.9
313	1000	90.6	104.5	167.2	-11.1	-95.9	34.8
397	1050	75.5	-47.8	-177.6	.8	-117.5	32.6
483	1100	69.4	-46.2	-20.8	16.1	-146.6	42.6
586	1150	-112.0	-33.9	-3.8	61.3	156.9	75.1
691	1200	-116.5	164.6	13.3	167.6	107.3	158.1
801	1250	-122.3	-12.8	53.5	-12.9	77.7	-144.3
918	1300	-141.6	51.4	130.9	14.7	44.0	-128.6
1173	1400	55.3	157.2	-56.3	173.5	-54.7	-2.3
1761	1500	-131.9	29.9	-77.0	17.0	167.9	-140.1
2453	1600	-20.1	-69.8	108.0	-123.0	-50.1	90.0
3249	2000	23.6	161.6	124.3	-161.4	-5.8	9.2

REC = 5 HEADING = 15. DEG SHIP SPEED = 5. KNOTS RAO (MOTION/HAVENT)**2

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	1.058E+00	7.488E-02	9.876E-01	3.508E-04	4.531E-03	2.248E-04
.234	.250	1.058E+00	7.447E-02	9.676E-01	9.287E-04	1.099E-02	5.649E-04
.277	.300	1.046E+00	7.330E-02	9.325E-01	2.188E-03	2.236E-02	1.208E-03
.319	.350	1.020E+00	8.100E-02	8.881E-01	5.041E-03	4.048E-02	2.888E-03
.359	.400	9.700E-01	8.024E-02	8.197E-01	1.088E-02	6.561E-02	5.059E-03
.399	.450	8.925E-01	7.321E-02	7.227E-01	2.268E-02	9.621E-02	7.705E-03
.439	.500	7.831E-01	6.253E-02	5.885E-01	4.382E-02	1.288E-01	1.053E-02
.479	.550	6.468E-01	5.021E-02	4.555E-01	8.008E-02	1.548E-01	1.310E-02
.509	.600	4.934E-01	3.798E-02	3.190E-01	1.381E-01	1.604E-01	1.491E-02
.529	.625	4.151E-01	3.226E-02	2.403E-01	1.747E-01	1.680E-01	1.535E-02
.543	.650	3.385E-01	2.726E-02	1.780E-01	2.288E-01	1.623E-01	1.541E-02
.559	.675	2.663E-01	2.278E-02	1.239E-01	2.778E-01	1.513E-01	1.507E-02
.575	.700	2.006E-01	1.897E-02	7.968E-02	3.587E-01	1.355E-01	1.431E-02
.592	.725	1.431E-01	1.585E-02	4.590E-02	4.088E-01	1.161E-01	1.315E-02
.607	.750	9.566E-02	1.335E-02	2.377E-02	4.809E-01	9.431E-02	1.166E-02
.633	.800	3.155E-02	8.821E-03	1.405E-03	6.688E-01	5.125E-02	8.008E-03
.650	.850	4.724E-03	7.260E-03	2.113E-03	1.002E+00	1.974E-02	3.952E-03
.665	.900	1.687E-03	1.836E-02	8.332E-03	3.133E+00	5.592E-03	1.196E-03
.685	.950	6.152E-03	2.558E-02	9.681E-03	2.441E+00	6.244E-03	1.073E-03
.721	1.000	7.268E-03	1.074E-02	5.800E-03	9.338E-01	1.128E-02	1.673E-04
.745	1.050	3.768E-03	4.180E-03	8.935E-04	3.958E-01	1.145E-02	1.451E-04
.773	1.100	4.107E-04	1.343E-03	3.245E-04	1.258E-01	6.568E-03	1.963E-04
.815	1.150	4.432E-04	6.556E-04	1.817E-03	2.350E-02	2.735E-03	1.160E-04
.835	1.200	2.041E-03	8.837E-04	1.859E-03	1.918E-02	3.209E-03	7.335E-05
.854	1.250	2.010E-03	5.362E-04	5.049E-04	2.788E-02	4.577E-03	1.402E-04
.872	1.300	5.288E-04	2.373E-04	1.590E-04	1.580E-02	3.401E-03	1.759E-04
.903	1.350	9.091E-04	2.243E-04	7.954E-04	5.310E-03	2.161E-03	5.633E-05
.951	1.400	6.628E-04	1.089E-04	2.400E-04	3.582E-03	1.957E-03	5.075E-05
.973	1.450	2.319E-04	5.048E-05	8.772E-05	3.248E-03	1.194E-03	4.908E-05
.995	2.000	1.016E-04	1.981E-05	2.198E-04	2.304E-07	7.111E-04	2.520E-05

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	-84.9	91.0	.0	80.4	93.2	7.3
.234	.250	-83.6	90.0	.0	75.6	91.1	7.5
.277	.300	-92.6	89.9	.1	70.1	89.6	7.6
.313	.350	-95.2	90.8	-1	64.7	87.6	6.2
.359	.400	-97.3	90.7	-3	58.9	86.0	7.2
.393	.450	-99.3	90.1	-3	53.9	84.3	8.8
.437	.500	-101.1	88.8	-3	50.0	82.6	10.8
.473	.550	-103.0	86.7	-1	47.5	80.7	12.9
.509	.600	-105.0	83.6	.1	46.4	78.3	15.3
.526	.625	-106.1	81.5	.2	46.5	77.0	16.7
.543	.650	-107.3	79.1	.4	47.0	75.5	18.1
.559	.675	-108.6	76.3	.6	48.1	73.7	19.7
.576	.700	-110.1	73.2	.9	49.8	71.7	21.5
.592	.725	-111.9	70.0	1.3	52.3	69.3	23.7
.607	.750	-114.0	67.2	2.1	55.9	66.5	26.3
.623	.800	-121.0	68.2	9.5	63.5	58.2	34.3
.638	.850	-141.6	88.9	170.1	99.6	42.5	55.8
.655	.900	-117.9	174.5	173.9	178.1	1.1	154.5
.671	.950	-62.9	-62.9	173.3	-67.1	-92.9	-52.4
.686	1.000	76.0	-27.7	170.3	-24.8	-92.9	-62.0
.701	1.050	61.3	-5.8	157.6	-3.4	-111.7	-114.6
.716	1.100	107.3	25.7	27.5	16.6	-134.8	-119.0
.731	1.150	-107.3	77.9	4.0	56.7	179.0	-97.1
.746	1.200	-115.2	120.5	-4.2	128.4	118.0	-40.1
.761	1.250	-120.6	143.8	-20.6	160.1	83.9	7.8
.776	1.300	-130.2	-173.4	-136.3	178.2	53.4	34.7
.791	1.400	57.4	-57.1	175.4	-32.4	-59.8	122.1
.806	1.500	-125.7	136.4	-16.9	163.5	98.7	-30.0
.821	1.600	31.3	9.1	59.1	3.0	-122.3	-172.1
.836	1.800	84.1	-94.2	-174.7	128.6	-35.7	82.4

REC = 7 HEADING = 15. DEG SHIP SPEED = 10. KNOTS

PAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	1.310E+00	3.692E-02	9.835E-01	3.356E-04	4.237E-03	1.414E-04
.218	.250	1.395E+00	8.966E-02	9.612E-01	8.711E-04	1.837E-02	4.415E-04
.254	.300	1.462E+00	9.211E-02	9.240E-01	1.980E-03	2.110E-02	1.134E-03
.283	.350	1.522E+00	9.398E-02	8.668E-01	4.158E-03	3.747E-02	2.528E-03
.319	.400	1.548E+00	9.821E-02	7.944E-01	8.553E-03	6.562E-02	5.580E-03
.347	.450	1.524E+00	9.573E-02	6.955E-01	1.642E-02	8.803E-02	9.673E-03
.373	.500	1.436E+00	8.559E-02	5.721E-01	2.921E-02	1.158E-01	1.451E-02
.397	.550	1.277E+00	7.975E-02	4.537E-01	4.759E-02	1.378E-01	1.935E-02
.417	.600	1.052E+00	5.743E-02	2.944E-01	6.983E-02	1.474E-01	2.444E-02
.427	.625	9.210E-01	4.461E-02	2.288E-01	8.094E-02	1.458E-01	2.610E-02
.435	.650	7.822E-01	3.510E-02	1.712E-01	9.069E-02	1.397E-01	2.712E-02
.444	.675	6.411E-01	2.820E-02	1.205E-01	9.786E-02	1.222E-01	2.735E-02
.452	.700	5.034E-01	2.117E-02	7.873E-02	1.013E-01	1.148E-01	2.671E-02
.453	.725	3.749E-01	1.519E-02	4.655E-02	1.001E-01	9.761E-02	2.514E-02
.455	.750	2.510E-01	1.039E-02	2.372E-02	9.384E-02	7.878E-02	2.271E-02
.476	.800	9.322E-02	4.281E-03	2.142E-03	6.852E-02	4.227E-02	1.585E-02
.484	.850	1.458E-02	1.550E-03	1.192E-03	3.816E-02	1.593E-02	8.216E-03
.489	.900	6.502E-03	1.559E-03	5.983E-03	2.217E-02	4.455E-03	2.433E-03
.492	.950	2.680E-02	1.300E-03	7.135E-03	2.954E-02	4.372E-03	2.045E-04
.493	1.000	3.536E-02	7.492E-04	3.933E-03	4.711E-02	7.332E-03	1.024E-03
.491	1.050	2.074E-02	1.571E-04	6.923E-04	4.993E-02	7.140E-03	2.511E-02
.497	1.100	2.557E-03	2.586E-04	2.662E-04	3.049E-02	3.947E-03	2.497E-03
.479	1.150	3.189E-03	7.823E-04	1.309E-03	8.065E-03	1.566E-03	1.112E-03
.470	1.200	1.760E-02	7.933E-04	1.337E-03	2.910E-03	1.681E-03	3.431E-04
.453	1.250	2.066E-02	1.957E-04	4.125E-04	9.279E-03	2.265E-03	1.098E-03
.443	1.300	5.563E-03	1.040E-04	1.412E-04	9.032E-03	1.590E-03	1.784E-03
.405	1.400	1.589E-02	1.041E-03	5.125E-04	8.465E-04	7.775E-04	1.519E-04
.302	1.600	4.570E-02	1.052E-03	1.531E-04	1.338E-03	4.609E-04	3.973E-04
.157	1.800	2.686E-01	6.420E-03	5.983E-05	1.829E-03	1.940E-04	1.122E-02
.028	2.000	2.507E+01	2.895E+01	1.533E-04	1.549E-03	5.520E-05	3.022E-01

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	-84.7	89.9	.1	78.4	92.7	16.3
.218	.250	-89.3	89.8	.1	73.3	90.8	14.0
.234	.300	-92.4	89.7	.1	67.6	89.1	12.2
.298	.350	-94.6	89.6	.1	61.9	87.6	11.5
.319	.400	-95.7	89.8	.1	56.3	85.5	10.7
.347	.450	-99.6	89.2	-.3	51.1	83.5	11.3
.373	.500	-100.4	88.0	-.5	46.9	81.4	12.4
.397	.550	-102.1	86.2	-.7	43.8	78.9	13.8
.417	.600	-104.0	83.3	-.8	41.9	76.1	15.3
.427	.625	-105.1	81.4	-.9	41.5	74.4	16.2
.436	.650	-106.2	79.1	-1.0	41.4	72.6	17.1
.444	.675	-107.4	76.2	-1.0	41.7	70.5	18.0
.452	.700	-108.8	72.5	-1.0	42.4	68.1	19.1
.458	.725	-110.4	67.8	-.9	43.7	65.4	20.2
.465	.750	-112.4	61.6	-.4	45.8	62.1	21.5
.476	.800	-118.9	41.8	5.8	53.3	53.1	24.6
.484	.850	-139.7	7.0	160.5	70.1	36.5	29.3
.489	.900	116.4	-31.3	166.5	106.6	-4.3	39.1
.492	.950	86.2	-57.2	164.8	147.8	-68.2	95.2
.493	1.000	79.3	-77.9	159.7	159.5	-100.4	-173.6
.491	1.050	73.8	-120.1	142.7	-178.6	-120.9	-158.3
.487	1.100	69.4	145.1	20.2	-168.3	-143.2	-147.5
.479	1.150	-110.1	119.6	-9.3	-147.1	168.2	-128.6
.470	1.200	-113.9	108.6	-22.0	-63.0	107.0	-62.8
.458	1.250	-117.4	95.3	-44.8	-23.9	70.7	-3.1
.443	1.300	-123.5	-56.7	-143.3	-16.4	40.0	15.8
.406	1.400	59.6	-81.4	149.3	-179.5	-75.2	110.9
.302	1.500	-117.3	91.3	-53.9	24.2	83.0	2.1
.157	1.800	57.9	145.1	42.4	-158.5	-120.2	-155.4
.028	2.000	126.6	-83.5	158.3	-71.7	39.2	-4.7

REC = 8 HEADING = 15. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

W.	HE	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	1.545E+00	1.053E-01	9.791E-01	3.320E-04	3.893E-03	4.451E-05
.202	.250	1.862E+00	1.153E-01	9.555E-01	8.529E-04	9.723E-03	2.330E-04
.232	.300	2.115E+00	1.255E-01	9.145E-01	1.895E-03	1.973E-02	7.211E-04
.267	.350	2.382E+00	1.289E-01	8.541E-01	3.850E-03	3.494E-02	1.845E-03
.278	.400	2.637E+00	1.307E-01	7.635E-01	7.232E-03	5.477E-02	3.925E-03
.296	.450	2.849E+00	1.295E-01	6.651E-01	1.303E-02	7.897E-02	8.642E-03
.310	.500	2.972E+00	1.243E-01	5.417E-01	2.172E-02	1.029E-01	1.584E-02
.320	.550	2.955E+00	1.118E-01	4.065E-01	3.284E-02	1.209E-01	2.445E-02
.325	.600	2.755E+00	7.535E-02	2.115E-01	4.429E-02	1.274E-01	3.477E-02
.329	.650	2.551E+00	6.165E-02	1.565E-01	5.225E-02	1.189E-01	4.405E-02
.329	.675	2.378E+00	4.834E-02	1.094E-01	5.357E-02	1.091E-01	4.783E-02
.327	.700	1.767E+00	3.555E-02	7.103E-02	5.257E-02	9.620E-02	5.024E-02
.325	.725	1.432E+00	2.575E-02	4.173E-02	4.913E-02	8.116E-02	5.103E-02
.322	.750	1.091E+00	1.733E-02	2.115E-02	4.344E-02	6.507E-02	5.012E-02
.313	.800	4.740E-01	1.005E-02	1.965E-03	2.768E-02	3.458E-02	4.288E-02
.301	.850	8.760E-02	1.315E-02	1.061E-03	1.226E-02	1.300E-02	2.811E-02
.284	.900	4.514E-02	2.035E-02	4.902E-03	3.842E-03	3.397E-03	1.332E-02
.264	.950	3.115E-01	2.445E-02	5.659E-03	4.316E-03	2.575E-03	2.372E-03
.253	1.000	6.194E-01	1.685E-02	2.976E-03	9.070E-03	4.692E-03	9.582E-04
.212	1.050	6.611E-01	1.955E-03	4.368E-04	1.134E-02	4.873E-03	9.645E-03
.180	1.100	2.176E-01	1.215E-02	2.487E-04	8.090E-03	2.885E-03	2.085E-02
.144	1.150	2.174E-01	1.105E-01	1.192E-03	2.562E-03	9.971E-04	2.351E-02
.105	1.200	6.435E+00	4.894E-01	1.242E-03	8.521E-06	7.014E-04	1.633E-02
.062	1.250	7.190E+01	2.429E+00	4.322E-04	1.479E-03	1.347E-03	1.360E-02
.015	1.300	1.611E+04	2.422E+02	2.480E-04	3.072E-03	2.027E-03	1.421E-01
.091	1.400	5.877E+00	5.641E-01	5.075E-04	5.701E-04	2.430E-04	1.645E-02
.347	1.600	2.692E-02	6.248E-04	1.592E-04	1.630E-03	4.573E-04	3.114E-04
.564	1.800	8.608E-04	1.145E-03	4.065E-05	1.616E-04	5.236E-04	5.161E-04
1.042	2.000	8.235E-05	1.702E-05	8.144E-05	5.595E-06	6.671E-04	2.132E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PIITCH	YAW
.170	.200	-84.5	89.7	.1	73.9	92.4	41.1
.202	.250	-89.1	89.6	.1	70.6	90.0	25.5
.232	.300	-92.0	89.4	.1	64.5	88.7	21.4
.257	.330	-94.2	89.0	.1	58.3	87.1	18.5
.273	.400	-95.9	88.4	.0	52.7	85.5	17.4
.296	.430	-97.5	87.8	-.2	47.6	83.2	16.2
.311	.500	-99.2	85.6	-.5	43.2	80.8	16.1
.321	.550	-100.8	84.5	-.9	38.8	78.1	16.5
.326	.600	-102.4	81.2	-1.3	37.4	75.0	17.2
.328	.625	-103.2	79.9	-1.5	36.5	73.2	17.6
.329	.650	-104.1	75.9	-1.6	36.0	71.3	17.9
.328	.675	-105.1	71.9	-1.8	35.6	69.2	18.3
.327	.700	-106.2	66.4	-1.8	35.6	66.8	18.6
.325	.725	-107.5	58.6	-1.6	30.0	64.2	18.9
.322	.750	-109.0	47.2	-.8	35.8	61.1	19.2
.313	.800	-114.1	9.7	8.5	40.7	52.7	19.2
.301	.850	-131.5	-29.8	130.7	51.0	38.0	18.3
.284	.900	115.7	-52.2	150.6	83.1	2.0	15.0
.264	.950	83.8	-64.2	139.4	140.4	-63.5	5.5
.233	1.000	83.2	-73.5	154.5	163.6	-97.0	-135.7
.212	1.050	81.1	-93.9	137.8	173.7	-114.7	-154.6
.180	1.100	82.2	110.2	2.5	172.8	-132.3	-160.9
.144	1.150	-108.6	98.2	-20.3	173.4	-165.0	-169.3
.105	1.200	-104.9	89.1	-32.8	-147.2	133.0	172.4
.052	1.250	-105.1	81.8	-58.2	-19.8	97.4	144.2
.015	1.300	-108.4	81.5	-155.4	-28.7	85.0	154.1
.091	1.400	72.6	-101.6	141.6	-126.8	-33.9	-25.4
.347	1.500	-119.5	95.0	-43.0	16.9	81.5	-4.0
.664	1.800	33.2	-164.2	56.2	-156.1	-138.3	-162.0
1.042	2.000	84.1	-79.9	-144.6	-26.3	-32.1	90.4

PHASE (MOTION-WAVEVENT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
159	200	-84.3	89.6	.1	74.1	90.5	98.8
137	250	-88.9	89.5	.1	68.1	88.8	61.3
209	300	-91.7	89.3	.0	61.6	87.6	44.0
226	350	-93.7	88.8	.0	55.3	86.5	36.0
238	400	-95.3	88.2	.0	48.3	84.6	30.2
245	450	-96.7	87.2	.4	44.1	82.6	27.3
246	500	-97.9	85.9	.7	39.5	80.4	25.7
243	550	-99.0	83.9	1.0	35.8	77.9	24.6
235	600	-100.1	80.9	1.3	32.7	75.1	23.9
229	625	-100.6	78.9	1.4	31.4	73.7	23.6
222	650	-101.1	76.4	1.5	30.2	72.1	23.2
213	675	-101.7	73.1	1.4	29.3	70.3	22.8
203	700	-102.3	68.6	1.0	28.4	68.3	22.3
192	725	-103.0	62.5	.0	27.8	66.4	21.6
180	750	-103.7	53.4	2.4	27.3	64.3	20.7
151	800	-106.3	15.2	25.5	27.3	58.9	18.0
117	850	-114.8	-43.5	135.2	29.4	51.0	12.9
079	900	124.6	-71.3	147.9	41.8	32.8	5.6
035	950	92.9	-81.1	142.4	122.9	.9	.8
014	1000	84.9	-83.6	135.0	165.5	-53.7	3.6
068	1050	84.8	-84.0	128.4	171.1	-36.7	-45.3
127	1100	83.6	101.0	-9.1	172.4	-120.8	-161.2
191	1150	-109.3	100.9	-21.5	178.0	-164.2	-163.7
260	1200	-109.3	101.7	-26.0	-77.5	119.8	-144.7
324	1250	-114.2	101.8	-37.2	-25.4	78.2	6.9
414	1300	-122.3	-64.5	-141.5	-17.0	46.4	19.5
587	1400	57.5	-92.5	171.2	164.5	-67.2	123.6
936	1500	-125.9	141.9	58.6	161.4	104.2	-25.4
1486	1600	44.3	50.5	44.0	23.9	-60.2	-140.7
2055	2000	79.8	-39.2	-148.2	13.1	67.9	150.4

REC = 10 HEADING = 15. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.199	.200	2.716E+00	1.795E-01	9.750E-01	3.396E-04	3.170E-03	6.019E-05
.171	.250	3.641E+00	2.284E-01	9.451E-01	3.713E-04	8.034E-03	1.306E-04
.165	.300	5.030E+00	2.954E-01	9.021E-01	1.938E-03	1.685E-02	2.017E-04
.195	.350	7.115E+00	3.858E-01	8.369E-01	3.894E-03	2.983E-02	4.120E-04
.197	.400	1.033E+01	5.134E-01	7.483E-01	7.193E-03	4.659E-02	9.107E-04
.133	.450	1.545E+01	7.033E-01	6.373E-01	1.226E-02	6.547E-02	1.932E-03
.133	.500	2.413E+01	1.012E+00	5.086E-01	1.322E-02	8.308E-02	3.678E-03
.165	.550	4.013E+01	1.578E+00	3.719E-01	2.745E-02	9.545E-02	5.072E-03
.144	.600	7.423E+01	2.834E+00	2.447E-01	3.596E-02	1.005E-01	9.632E-03
.190	.625	1.073E+02	4.152E+00	1.865E-01	3.935E-02	9.895E-02	1.194E-02
.114	.650	1.683E+02	6.676E+00	1.340E-01	4.142E-02	9.439E-02	1.621E-02
.607	.675	2.885E+02	1.217E+01	9.218E-02	4.293E-02	8.842E-02	2.762E-02
.779	.700	5.835E+02	2.705E+01	5.796E-02	4.364E-02	7.980E-02	6.063E-02
.659	.725	1.602E+03	8.369E+01	3.107E-02	3.953E-02	7.415E-02	1.745E-01
.607	.750	7.311E+03	4.970E+02	1.459E-02	3.613E-02	5.973E-02	6.628E-01
.814	.800	1.793E+05	1.258E+04	3.098E-03	2.447E-02	6.392E-02	3.575E+00
.566	.850	5.806E+01	7.196E-01	3.574E-03	1.325E-02	2.351E-02	2.257E-02
.127	.900	6.455E-01	3.955E-01	5.256E-03	2.979E-03	4.403E-03	3.253E-02
.194	.950	1.017E+00	1.009E-01	4.826E-03	2.621E-03	2.017E-03	5.032E-03
.263	1.000	4.061E-01	1.071E-02	2.462E-03	1.938E-03	4.203E-03	4.513E-04
.348	1.050	8.355E-02	6.567E-05	5.464E-04	2.333E-02	4.995E-03	2.884E-03
.474	1.100	4.153E-03	1.298E-03	2.909E-05	2.585E-02	3.144E-03	2.193E-03
.527	1.150	2.214E-03	9.796E-04	6.336E-04	1.897E-02	1.423E-03	6.487E-04
.666	1.200	5.793E-03	4.824E-06	7.678E-04	3.601E-02	1.603E-03	2.334E-04
.771	1.250	3.381E-03	5.608E-03	3.652E-04	6.104E-01	2.415E-03	2.577E-04
.843	1.300	5.512E-04	2.460E-03	1.049E-04	2.774E-02	2.051E-03	1.602E-04
1.035	1.400	3.763E-04	8.979E-05	2.013E-04	1.773E-03	1.723E-03	3.812E-05
1.645	1.600	4.331E-05	1.097E-05	4.868E-04	2.221E-04	1.011E-03	1.449E-05
2.303	1.800	4.231E-06	8.900E-07	3.607E-05	1.873E-05	1.023E-04	1.738E-06
3.370	2.000	7.994E-07	3.898E-07	6.415E-07	1.492E-06	5.646E-06	1.175E-07

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
1.49	.200	-84.2	89.5	.0	73.0	86.7	142.2
1.71	.250	-83.6	89.4	.0	56.4	87.4	132.7
1.85	.300	-91.3	89.2	-1	59.7	89.7	109.7
1.95	.350	-93.2	88.8	-2	53.2	84.4	91.3
1.97	.400	-94.6	88.3	-4	47.3	82.8	78.9
1.93	.450	-93.7	87.6	-7	42.2	81.1	72.3
1.83	.500	-90.5	86.7	-10	37.8	79.2	71.1
1.66	.550	-91.1	85.8	-13	34.2	77.6	76.1
1.44	.600	-97.6	84.9	-16	31.3	75.0	85.7
1.23	.625	-97.7	84.6	-15	30.0	74.3	96.6
1.14	.650	-97.7	84.6	-8	29.0	74.7	113.7
1.07	.675	-97.9	84.6	-5	28.1	73.0	129.3
1.03	.700	-98.0	84.9	.5	27.3	71.9	145.5
1.03	.725	-97.7	85.5	5.4	26.5	75.4	160.3
1.07	.750	-98.2	85.7	7.4	26.2	70.7	167.7
1.14	.800	-99.6	84.8	85.1	24.4	69.4	172.6
1.06	.850	-110.6	41.6	123.5	26.5	63.7	27.0
1.27	.900	119.5	-69.6	145.8	48.5	33.4	6.5
1.94	.950	89.6	-73.7	155.8	137.2	-42.8	-4.2
2.68	1.000	82.7	-169.5	162.6	134.6	-86.2	-120.6
3.48	1.050	77.2	-169.5	169.9	175.7	-110.4	-148.6
4.34	1.100	72.1	130.4	-32.8	-170.6	-134.7	-142.9
5.27	1.150	-110.1	134.0	-7.9	-143.4	179.8	-123.7
6.25	1.200	-114.7	123.5	2.4	-50.2	122.7	-55.9
7.31	1.250	-120.2	127.2	26.2	130.8	87.6	80.5
8.43	1.300	-129.4	-169.5	92.9	174.0	58.5	44.9
1.085	1.400	58.0	-45.2	-103.5	-26.0	-41.6	143.2
1.646	1.600	-124.6	172.1	-66.4	-171.0	179.6	14.4
2.308	1.800	26.2	64.9	117.3	36.1	-23.3	-122.1
3.071	2.000	35.4	-42.4	-106.8	42.3	44.2	142.2

REC = 11 HEADING = 30. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.191	.200	8.44E-01	2.764E-01	9.902E-01	1.311E-03	3.63E-03	6.706E-04
.236	.250	8.36E-01	2.752E-01	9.738E-01	3.44E-03	8.84E-03	1.675E-03
.281	.300	8.28E-01	2.710E-01	9.448E-01	7.93E-03	1.80E-02	3.556E-03
.322	.350	8.11E-01	3.044E-01	9.114E-01	1.85E-02	3.31E-02	8.564E-03
.364	.400	7.78E-01	3.043E-01	8.570E-01	4.00E-02	5.46E-02	1.525E-02
.404	.450	7.26E-01	2.826E-01	7.768E-01	8.20E-02	8.17E-02	2.336E-02
.443	.500	6.52E-01	2.48E-01	6.597E-01	1.61E-01	1.12E-01	3.24E-02
.481	.550	5.59E-01	2.08E-01	5.403E-01	3.07E-01	1.40E-01	4.14E-02
.518	.600	4.51E-01	1.68E-01	3.990E-01	5.64E-01	1.61E-01	4.90E-02
.556	.625	3.93E-01	1.49E-01	3.286E-01	7.53E-01	1.66E-01	5.19E-02
.594	.650	3.36E-01	1.32E-01	2.514E-01	1.02E+00	1.67E-01	5.38E-02
.631	.675	2.79E-01	1.174E-01	1.93E-01	1.38E+00	1.63E-01	5.48E-02
.669	.700	2.25E-01	1.05E-01	1.44E-01	1.73E+00	1.55E-01	5.46E-02
.707	.725	1.74E-01	9.62E-02	9.824E-02	2.31E+00	1.42E-01	5.33E-02
.745	.750	1.30E-01	9.08E-02	6.138E-02	3.04E+00	1.25E-01	5.08E-02
.783	.800	6.05E-02	9.16E-02	1.597E-02	5.81E+00	8.61E-02	4.21E-02
.821	.850	1.96E-02	9.82E-02	5.816E-04	1.13E+01	4.75E-02	2.26E-02
.859	.900	2.93E-03	2.62E-02	2.546E-03	6.29E+00	1.89E-02	4.42E-04
.897	.950	1.56E-03	2.08E-02	8.581E-03	1.50E+00	6.37E-03	7.75E-05
.935	1.000	4.76E-03	1.89E-02	9.958E-03	1.02E+00	7.06E-03	8.78E-05
.973	1.050	5.69E-03	1.32E-02	5.925E-03	8.02E-01	1.18E-02	2.56E-04
.825	1.100	3.35E-03	6.77E-03	1.77E-03	5.07E-01	1.25E-02	9.03E-04
.863	1.150	6.50E-04	2.72E-03	1.77E-04	2.19E-01	8.15E-03	1.02E-03
.901	1.200	9.98E-05	1.66E-03	1.46E-03	5.85E-02	3.73E-03	6.03E-04
.939	1.250	1.14E-03	1.86E-03	2.02E-03	3.09E-02	3.21E-03	3.10E-04
.977	1.300	1.61E-03	1.61E-03	9.10E-04	5.03E-02	4.76E-03	4.65E-04
.954	1.400	4.94E-05	4.03E-04	5.194E-04	1.36E-02	2.55E-03	5.20E-04
1.064	1.500	5.65E-05	2.39E-04	4.74E-04	1.56E-03	1.56E-03	2.46E-04
1.064	1.800	8.98E-05	1.29E-04	3.37E-04	2.43E-04	1.17E-03	1.08E-04
1.091	2.000	2.08E-04	1.28E-04	7.36E-05	1.73E-03	1.34E-03	9.35E-05

PHASE (MOTION-WAVEFT)

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
191	200	-84.0	90.0	.0	81.6	93.7	7.3
250	250	-89.1	90.0	.0	77.2	91.6	7.4
281	300	-92.3	89.9	.1	72.3	90.0	7.6
322	320	-95.1	90.9	-2	67.5	88.1	5.6
364	400	-97.3	90.8	-3	62.0	85.5	6.5
404	450	-99.2	90.2	-4	57.1	85.0	8.1
445	500	-101.1	89.1	-4	53.2	83.5	10.1
481	550	-103.0	87.3	-3	50.6	81.8	12.2
518	600	-105.0	84.6	-2	49.4	79.9	14.5
536	625	-106.0	82.8	-1	49.5	78.6	15.8
554	650	-107.1	80.8	-0	50.0	77.3	17.3
571	675	-108.3	78.5	.0	51.1	75.9	18.9
589	700	-109.7	76.0	.1	52.9	74.3	20.8
606	725	-111.1	73.7	.1	53.6	72.4	23.1
622	750	-112.9	72.1	.1	59.6	70.3	26.1
638	800	-117.4	75.1	.3	75.3	64.8	36.8
655	850	-125.4	109.3	2.8	115.7	55.7	53.6
671	900	-150.8	-155.1	177.4	-161.6	38.6	70.5
688	950	115.9	-75.5	17.4	-90.6	-2.5	-1.6
705	1.000	85.0	-45.0	175.1	-44.2	-59.7	-15.5
722	1.050	75.3	-27.5	173.0	-19.3	-89.2	-139.7
739	1.100	68.9	-8.7	162.5	-2.8	-108.0	-139.8
756	1.150	50.0	22.5	54.6	14.2	-123.2	-129.5
773	1.200	-94.0	70.9	11.7	45.6	-166.6	-107.8
790	1.250	-113.6	110.0	2.8	112.6	126.4	-59.1
807	1.300	-120.2	136.9	-7.8	152.0	97.3	-6.6
824	1.400	-164.8	-137.9	-137.1	-166.5	30.6	48.4
841	1.500	-24.8	43.3	23.1	-168.1	-158.8	-128.5
858	1.600	89.1	-103.8	-165.3	-168.1	-16.5	83.7
875	1.700	-126.3	123.4	-1.0	161.5	111.3	-32.5

REC = 12 HEADINGS = 30 DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/MAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	1.022E+00	3.156E-01	9.864E-01	1.262E-03	3.377E-03	4.273E-04
.222	.250	1.066E+00	3.231E-01	9.675E-01	3.253E-03	8.302E-03	1.277E-03
.259	.300	1.115E+00	3.320E-01	9.370E-01	7.375E-03	1.705E-02	3.285E-03
.294	.350	1.154E+00	3.422E-01	8.917E-01	1.559E-02	3.081E-02	7.809E-03
.327	.400	1.172E+00	3.483E-01	8.332E-01	3.195E-02	5.072E-02	1.677E-02
.353	.450	1.160E+00	3.503E-01	7.503E-01	6.167E-02	7.533E-02	2.871E-02
.385	.500	1.108E+00	3.287E-01	6.433E-01	1.125E-01	1.022E-01	4.336E-02
.412	.550	1.011E+00	2.826E-01	5.173E-01	1.895E-01	1.267E-01	5.999E-02
.438	.600	8.695E-01	2.269E-01	3.824E-01	2.961E-01	1.433E-01	7.152E-02
.447	.625	7.841E-01	1.975E-01	3.105E-01	3.571E-01	1.469E-01	8.192E-02
.458	.650	6.916E-01	1.682E-01	2.526E-01	4.203E-01	1.466E-01	8.719E-02
.463	.675	5.943E-01	1.399E-01	1.943E-01	4.803E-01	1.424E-01	9.063E-02
.477	.700	4.956E-01	1.132E-01	1.455E-01	5.313E-01	1.340E-01	9.182E-02
.486	.725	3.988E-01	8.295E-02	9.851E-02	5.688E-01	1.220E-01	9.047E-02
.494	.750	3.073E-01	6.758E-02	6.313E-02	5.855E-01	1.073E-01	8.841E-02
.509	.800	1.532E-01	3.475E-02	1.783E-02	5.394E-01	7.209E-02	7.060E-02
.522	.850	5.257E-02	1.511E-02	1.223E-03	3.976E-01	3.877E-02	4.764E-02
.532	.900	8.371E-03	6.004E-03	1.354E-03	2.295E-01	1.537E-02	2.400E-02
.540	.950	5.668E-03	3.231E-03	5.725E-03	1.461E-01	5.195E-03	7.014E-03
.545	1.000	1.829E-02	2.733E-03	6.332E-03	2.066E-01	4.892E-03	8.337E-04
.549	1.050	2.357E-02	2.346E-03	4.079E-03	3.390E-01	7.459E-03	3.497E-03
.550	1.100	1.512E-02	1.834E-03	9.762E-04	3.850E-01	7.526E-03	8.146E-03
.549	1.150	3.133E-03	1.394E-03	1.912E-04	2.685E-01	4.727E-03	8.569E-03
.545	1.200	5.566E-04	1.782E-03	1.061E-03	9.503E-02	2.139E-03	4.574E-03
.540	1.250	7.487E-03	1.805E-03	1.422E-03	2.119E-02	1.735E-03	1.252E-03
.532	1.300	1.185E-02	8.519E-04	6.905E-04	5.798E-02	2.353E-03	2.222E-03
.509	1.400	3.072E-04	1.276E-03	3.814E-04	3.873E-02	1.105E-03	4.035E-03
.436	1.600	7.800E-04	2.669E-03	3.282E-04	2.373E-02	4.447E-04	3.687E-03
.327	1.800	4.299E-03	6.791E-03	2.332E-04	7.659E-03	1.729E-04	2.296E-03
.182	2.000	1.236E-01	3.368E-02	6.715E-05	2.116E-03	1.095E-04	1.608E-03

PHASE (MOTION-HAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
182	200	-83.8	89.9	.1	79.7	93.1	15.8
222	250	-88.9	89.8	.1	75.0	91.2	14.1
259	300	-92.1	89.7	.1	59.9	89.5	12.1
294	350	-94.5	89.9	.0	64.7	87.9	10.7
327	400	-96.7	90.0	-.2	59.3	85.9	9.9
359	450	-98.6	89.5	-.4	54.1	84.1	10.5
386	500	-100.5	88.5	-.6	49.6	82.2	11.6
412	550	-102.3	86.9	-.8	46.2	80.0	12.9
436	600	-104.2	84.6	-1.0	43.8	77.5	14.4
461	625	-105.2	83.0	-1.2	43.1	76.1	15.2
484	650	-106.2	81.2	-1.3	42.6	74.5	16.0
508	675	-107.4	79.0	-1.5	42.5	72.7	16.9
531	700	-108.6	76.5	-1.7	42.7	70.7	17.8
555	725	-110.1	73.3	-2.0	43.3	68.5	18.9
579	750	-111.7	69.5	-2.3	44.4	65.9	19.9
603	800	-115.1	59.1	-2.8	48.4	59.4	22.5
627	850	-124.3	42.3	-2.0	56.6	49.4	25.9
651	900	-151.1	13.7	171.2	74.6	31.5	31.2
675	950	114.9	-28.1	170.3	111.3	-8.2	43.0
699	1000	86.4	-57.9	167.1	150.8	-64.7	103.1
723	1050	77.5	-100.8	161.3	172.0	-97.1	-177.8
747	1100	71.9	-137.2	145.5	-176.3	-118.3	-151.6
771	1150	65.5	176.7	46.2	-166.5	-141.6	-151.1
795	1200	-102.3	137.8	-.8	-150.1	179.6	-135.9
819	1250	-113.8	111.7	-15.2	-87.6	122.5	-93.3
843	1300	-119.6	85.8	-32.8	-28.1	91.8	-17.1
867	1350	-155.5	-59.4	-171.6	-11.7	12.1	23.5
891	1400	-23.3	114.8	-1.3	158.6	177.7	-158.6
915	1450	83.7	-75.6	158.7	-47.2	-43.4	-20.8
939	1500	-113.9	82.5	-55.0	56.9	90.4	53.8

REC = 13 HEADING = 30. DEG SHIP SPEED = 15. KNOTS

RAO (MOTION/WAVEHT)**2

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	1.255E+00	3.736E-01	9.823E-01	1.243E-03	3.081E-03	1.447E-04
.207	.250	1.385E+00	4.030E-01	9.626E-01	3.132E-03	7.754E-03	7.054E-04
.239	.300	1.535E+00	4.262E-01	9.285E-01	7.055E-03	1.593E-02	2.163E-03
.266	.350	1.702E+00	4.438E-01	8.773E-01	1.272E-02	2.843E-02	5.368E-03
.291	.400	1.855E+00	4.644E-01	8.078E-01	2.726E-02	4.595E-02	1.270E-02
.312	.450	1.985E+00	4.793E-01	7.219E-01	4.932E-02	6.888E-02	2.710E-02
.330	.500	2.098E+00	4.860E-01	6.138E-01	8.533E-02	9.175E-02	4.754E-02
.344	.550	2.051E+00	4.194E-01	4.894E-01	1.345E-01	1.185E-01	7.392E-02
.355	.600	1.945E+00	3.508E-01	3.588E-01	1.928E-01	1.256E-01	1.045E-01
.359	.625	1.845E+00	3.098E-01	2.952E-01	2.317E-01	1.279E-01	1.202E-01
.362	.650	1.725E+00	2.662E-01	2.352E-01	2.476E-01	1.267E-01	1.352E-01
.364	.675	1.565E+00	2.217E-01	1.802E-01	2.679E-01	1.285E-01	1.487E-01
.365	.700	1.385E+00	1.781E-01	1.318E-01	2.739E-01	1.140E-01	1.595E-01
.367	.725	1.185E+00	1.372E-01	9.091E-02	2.916E-01	1.023E-01	1.668E-01
.369	.750	9.755E-01	1.013E-01	5.812E-02	2.716E-01	8.952E-02	1.695E-01
.369	.800	5.595E-01	4.965E-02	1.643E-02	2.192E-01	5.929E-02	1.586E-01
.357	.850	2.225E-01	2.957E-02	1.206E-03	1.371E-01	3.135E-02	1.257E-01
.353	.900	3.775E-02	3.552E-02	1.091E-03	6.198E-02	1.213E-02	3.698E-03
.355	.950	3.195E-02	4.986E-02	4.745E-03	2.376E-02	3.698E-03	3.134E-02
.348	1.000	1.495E-01	5.154E-02	5.526E-03	2.750E-02	3.022E-03	3.515E-03
.299	1.050	2.655E-01	3.181E-02	3.104E-03	4.935E-02	4.673E-03	3.182E-03
.275	1.100	2.515E-01	5.600E-03	6.241E-04	5.788E-02	4.771E-03	2.261E-02
.243	1.150	9.275E-02	9.154E-03	1.564E-04	4.988E-02	2.944E-03	4.508E-02
.185	1.200	8.015E-03	8.071E-02	9.511E-04	1.712E-02	1.168E-03	4.468E-02
.183	1.250	4.545E-01	2.059E-01	1.243E-03	9.683E-04	6.575E-04	1.844E-02
.064	1.300	1.975E+00	2.639E-01	6.223E-04	4.417E-03	1.035E-03	1.192E-03
.064	1.400	5.225E+00	1.517E+00	3.626E-04	1.256E-02	9.153E-04	1.862E-01
.156	1.500	6.835E-02	1.676E-01	2.666E-04	1.558E-02	2.100E-04	5.174E-02
.409	1.600	2.175E-03	3.685E-03	2.595E-04	9.788E-03	2.109E-04	1.108E-03
.777	2.000	8.555E-04	2.150E-03	8.195E-05	1.491E-01	5.330E-04	1.059E-05

PHASE (MOTION-WAVEHT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-83.6	89.7	.1	77.5	92.6	37.9
.207	.250	-88.7	89.7	.1	72.6	90.3	24.9
.239	.300	-91.8	89.5	.1	67.1	88.9	20.5
.266	.350	-94.1	89.2	.1	61.4	87.5	18.0
.291	.400	-96.0	88.9	.1	56.0	85.7	16.1
.312	.450	-97.8	88.5	.3	50.9	83.5	15.0
.330	.500	-99.5	87.5	.7	46.3	81.2	15.0
.344	.550	-101.2	85.9	1.1	42.6	78.8	15.6
.355	.600	-102.9	83.4	1.6	39.8	75.9	16.3
.365	.650	-103.7	81.7	1.9	38.8	74.3	16.7
.362	.699	-104.7	79.7	2.2	38.0	72.6	17.2
.364	.745	-105.6	77.1	2.6	37.4	70.7	17.7
.365	.790	-106.7	73.8	3.0	37.2	69.6	18.2
.367	.725	-107.9	69.5	3.4	37.1	66.3	18.7
.366	.760	-109.2	63.6	3.8	37.5	63.7	19.2
.364	.800	-112.8	44.1	4.4	39.5	57.2	20.3
.357	.850	-119.7	8.7	1.0	44.6	47.7	21.3
.353	.900	-143.9	-27.5	162.5	57.5	31.2	22.1
.335	.950	-113.1	-48.3	157.7	92.7	-5.9	22.5
.313	1.000	68.0	-60.5	160.7	142.6	-64.1	20.1
.293	1.050	81.5	-70.6	155.0	164.5	-96.8	-151.6
.275	1.100	73.6	-89.2	139.3	171.8	-115.5	-156.5
.243	1.150	77.3	121.3	23.8	175.0	-134.4	-158.9
.213	1.200	-111.5	105.9	-3.5	176.8	-164.7	-162.2
.185	1.250	-107.4	97.8	-36.7	-167.4	137.6	-169.8
.148	1.300	-107.8	88.0	-47.9	-24.3	95.4	80.7
.064	1.400	-116.6	-87.5	177.8	-36.1	57.5	1.3
.146	1.600	24.5	109.8	-5.3	143.9	-139.8	-171.9
.423	1.800	85.9	-73.3	163.7	-40.7	-48.8	32.7
.727	2.000	-129.5	127.6	-10.3	137.9	86.3	-19.9

REC = 14

HEADING = 30. DEG SHIP SPEED = 20. KNOTS
 RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	1.545E+00	4.626E-01	7.791E-01	1.248E-03	2.757E-03	6.688E-05
.193	.250	1.827E+00	5.277E-01	9.579E-01	3.183E-03	7.132E-03	2.479E-04
.218	.300	2.189E+00	5.895E-01	9.207E-01	7.004E-03	1.469E-02	8.88E-04
.239	.350	2.627E+00	6.565E-01	8.673E-01	1.401E-02	2.636E-02	2.819E-03
.255	.400	3.133E+00	7.180E-01	7.934E-01	2.590E-02	4.211E-02	7.198E-03
.266	.450	3.713E+00	7.645E-01	6.977E-01	4.487E-02	6.077E-02	1.558E-02
.273	.500	4.328E+00	7.942E-01	5.835E-01	7.205E-02	8.011E-02	3.015E-02
.273	.550	4.938E+00	7.942E-01	4.573E-01	1.058E-01	9.678E-02	5.346E-02
.273	.600	5.468E+00	7.466E-01	3.303E-01	1.450E-01	1.069E-01	8.763E-02
.273	.625	5.672E+00	7.061E-01	2.697E-01	1.623E-01	1.004E-01	1.031E-01
.265	.650	5.814E+00	6.523E-01	2.130E-01	1.781E-01	1.071E-01	1.332E-01
.261	.675	5.877E+00	5.872E-01	1.617E-01	1.892E-01	1.029E-01	1.596E-01
.255	.700	5.843E+00	5.110E-01	1.170E-01	1.940E-01	9.800E-02	1.873E-01
.247	.725	5.692E+00	4.272E-01	7.963E-02	1.939E-01	8.568E-02	2.153E-01
.239	.750	5.497E+00	3.404E-01	5.005E-02	1.857E-01	7.550E-02	2.419E-01
.213	.800	4.376E+00	1.877E-01	1.333E-02	1.498E-01	5.067E-02	2.861E-01
.193	.850	2.726E+00	1.552E-01	3.717E-04	9.723E-02	2.782E-02	3.035E-01
.164	.900	8.033E-01	4.785E-01	1.673E-03	4.426E-02	1.147E-02	2.993E-01
.123	.950	1.924E+01	1.995E+00	5.324E-03	1.061E-02	3.376E-03	2.67E-01
.091	1.000	4.127E+02	1.295E+02	3.202E-03	1.857E-02	2.455E-03	6.59E-01
.049	1.050	4.581E+04	1.325E+04	4.584E-04	3.463E-02	5.935E-03	6.32E+00
.014	1.100	7.036E+01	3.715E+00	2.595E-04	4.005E-02	4.023E-03	9.21E-03
.052	1.150	4.862E-02	1.023E+00	1.042E-03	1.935E-02	1.389E-03	9.915E-02
.109	1.200	6.173E-01	3.164E-01	1.192E-03	1.156E-03	5.608E-04	1.763E-02
.171	1.250	2.823E-01	3.179E-02	5.250E-04	6.162E-03	1.073E-03	1.015E-03
.236	1.300	1.030E-03	6.152E-03	2.621E-04	2.063E-02	6.765E-04	6.53E-03
.392	1.400	1.007E-04	4.991E-03	1.827E-04	9.613E-01	6.728E-04	1.21E-03
.728	1.600	6.479E-05	9.812E-05	2.493E-05	8.083E-05	9.779E-04	9.049E-05
1.146	1.800	2.439E-05	3.146E-05	2.620E-04	4.141E-04	6.398E-04	4.03E-05
1.639	2.000						

PHASE (MOTION-WAVEHT)

WE	N	SURGE	SWAY	HEAVE	POLL	PITCH	YAW
164	200	-83.4	89.6	1	75.7	91.0	97.5
193	250	-89.4	89.6	1	70.2	88.8	55.7
219	300	-91.5	89.4	1	64.2	88.0	41.8
239	350	-93.7	89.0	0	58.3	86.5	32.3
255	400	-95.4	88.5	2	52.5	84.8	27.6
265	450	-96.9	87.7	4	47.2	83.0	25.1
273	500	-98.2	86.5	7	42.6	81.0	23.6
275	550	-99.5	84.9	11	38.6	78.5	22.6
273	600	-100.8	82.5	17	35.3	75.7	21.9
270	625	-101.4	80.9	20	33.9	74.2	21.6
266	650	-102.0	79.0	23	32.7	72.5	21.4
261	675	-102.7	76.5	26	31.6	70.8	21.1
255	700	-103.4	73.3	29	30.6	69.9	20.9
247	725	-104.1	69.1	31	29.8	66.9	20.5
239	750	-104.9	63.1	30	29.2	64.7	20.1
218	800	-106.9	41.1	11	28.5	59.7	18.7
193	850	-110.8	7.3	14	29.3	52.8	16.5
154	900	-124.5	-50.4	152.9	33.3	42.2	12.4
123	950	114.9	-70.2	145.9	50.4	19.5	5.8
91	1000	90.8	-80.3	152.2	131.7	-33.1	-3.3
84	1050	87.2	-84.5	140.9	166.5	-65.9	-5.2
52	1100	85.9	-84.4	106.7	170.6	-74.7	2.9
13	1150	83.4	-75.5	9	170.9	-105.5	-150.5
103	1200	-118.3	91.6	-21.7	171.3	-139.3	-173.8
11	1250	-107.0	94.5	-28.6	171.7	148.6	-176.2
236	1300	-110.7	93.2	-38.8	-27.8	93.5	18.5
322	1400	-142.3	-69.0	-175.9	-18.7	19.5	24.2
728	1500	-40.5	-48.3	14.1	-51.2	-174.8	-93.4
145	1600	89.7	-87.8	-140.2	-137.5	-9.4	96.2
1636	2000	-126.7	152.0	-59.4	173.5	178.7	-1.9

REC = 15 HEADING = 30. DEG SHIP SPEED = 25. KNOTS RAO (MOTION/NAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	1.935E+00	5.910E-01	9.779E-01	1.262E-03	2.451E-03	1.585E-04
.179	.200	2.468E+00	7.242E-01	9.577E-01	3.221E-03	6.415E-03	2.814E-04
.193	.300	3.228E+00	8.910E-01	9.167E-01	7.105E-03	1.355E-02	4.915E-04
.211	.300	4.288E+00	1.096E+00	9.693E-01	1.417E-02	2.421E-02	1.121E-03
.218	.400	5.777E+00	1.355E+00	7.833E-01	2.612E-02	3.806E-02	2.684E-03
.223	.400	7.894E+00	1.691E+00	6.864E-01	4.463E-02	5.516E-02	6.119E-03
.216	.500	1.097E+01	2.138E+00	5.725E-01	7.112E-02	7.250E-02	1.276E-02
.206	.500	1.559E+01	2.760E+00	4.477E-01	1.044E-01	8.745E-02	2.389E-02
.191	.600	2.291E+01	3.704E+00	3.206E-01	1.417E-01	9.597E-02	3.918E-02
.181	.600	2.831E+01	4.399E+00	2.588E-01	1.591E-01	9.680E-02	4.704E-02
.173	.600	3.562E+01	5.350E+00	2.027E-01	1.731E-01	9.585E-02	5.329E-02
.157	.675	4.583E+01	6.742E+00	1.532E-01	1.865E-01	9.194E-02	6.095E-02
.143	.700	6.097E+01	8.896E+00	1.109E-01	1.945E-01	8.643E-02	6.553E-02
.127	.725	8.515E+01	1.258E+01	7.343E-02	1.968E-01	7.885E-02	6.436E-02
.111	.750	1.279E+02	1.966E+01	4.475E-02	1.893E-01	7.015E-02	5.881E-02
.072	.800	4.235E+02	7.948E+01	1.102E-02	1.612E-01	5.115E-02	1.173E-01
.029	.850	7.727E+03	2.204E+02	1.142E-03	1.093E-01	2.069E-02	1.792E+00
.021	.900	5.712E+03	1.402E+03	6.027E-03	5.531E-02	2.385E-02	5.231E-01
.073	.950	4.457E+00	8.036E+00	6.202E-03	1.312E-02	5.519E-03	2.294E-01
.137	1.000	3.953E+00	1.932E+00	5.032E-03	6.421E-03	1.707E-03	6.718E-02
.203	1.050	1.238E+00	2.102E-01	2.582E-03	3.455E-02	3.340E-03	2.714E-03
.275	1.100	1.947E-02	4.711E-03	4.754E-04	6.643E-02	4.097E-03	1.061E-02
.353	1.150	1.160E-03	6.920E-03	1.940E-05	7.973E-02	2.973E-03	1.383E-02
.437	1.200	1.160E-03	8.527E-03	5.400E-04	4.794E-02	1.467E-03	5.261E-03
.526	1.250	8.144E-03	2.492E-02	8.899E-04	2.255E-02	1.322E-03	9.203E-04
.621	1.300	5.445E-03	7.395E-04	4.514E-04	2.805E-01	1.917E-03	1.703E-03
.828	1.400	5.768E-05	6.380E-04	5.634E-05	6.998E-02	1.361E-03	5.778E-04
1.311	1.600	1.272E-05	1.169E-04	6.325E-04	8.923E-04	1.399E-03	1.219E-04
1.683	1.800	5.997E-06	1.949E-05	2.138E-04	3.443E-05	1.151E-04	1.420E-05
2.546	2.000	3.676E-06	2.696E-06	9.172E-06	2.921E-05	3.324E-05	3.325E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
155	.200	-83.3	89.5	.0	74.5	86.8	139.8
179	.250	-88.2	89.5	.0	68.5	86.7	123.5
198	.300	-91.1	89.3	-1	62.3	85.5	97.7
211	.350	-93.2	88.9	-2	56.0	84.6	78.4
218	.400	-94.7	88.5	-4	50.2	83.2	65.2
220	.450	-96.0	87.8	-7	44.9	81.5	56.7
216	.500	-97.1	86.9	-11	40.3	79.3	51.7
206	.550	-98.0	85.8	-16	36.3	76.9	49.4
191	.600	-98.7	84.5	-22	33.0	74.6	49.5
181	.625	-99.0	83.8	-24	31.6	73.5	50.7
170	.650	-99.2	83.1	-24	30.3	72.8	53.0
157	.675	-99.4	82.4	-26	29.1	71.3	55.4
143	.700	-99.7	81.9	-26	28.0	69.9	59.7
127	.725	-99.8	81.6	-19	27.1	69.3	67.5
111	.750	-99.7	81.6	-1	26.2	69.6	81.8
972	.800	-100.2	82.1	7.4	24.9	67.3	130.5
929	.850	-101.5	82.8	67.6	24.3	65.6	165.2
921	.900	-109.3	73.9	127.8	24.6	69.6	153.7
976	.950	119.4	-71.7	142.4	39.0	41.6	5.9
137	1.000	90.0	-78.5	150.9	134.0	-30.2	-4.3
203	1.050	83.5	-80.3	155.0	165.0	-81.6	-65.2
275	1.100	78.7	-97.3	155.6	172.8	-105.8	-148.0
353	1.150	72.6	129.5	18.1	-176.5	-131.7	-147.6
437	1.200	-105.9	127.7	-7.1	-157.9	-170.8	-135.1
525	1.250	-113.8	123.2	-4.8	-89.7	132.5	-87.7
621	1.300	-119.1	123.2	1.3	-20.5	94.0	-14.4
828	1.400	-166.3	-143.1	166.3	178.3	27.9	58.5
1.311	1.500	-24.3	81.5	-26.2	33.0	-127.3	-100.6
1.883	1.600	54.2	-59.3	-125.8	16.1	51.5	140.0
2.546	2.000	-146.3	-170.1	64.5	157.4	-149.6	-1.6

REC = 15 HEADING = 45. DEG SHIP SPEED = 5. KNOTS MOTION/WAVEHT**2

WE	M	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.193	.200	5.441E-01	5.431E-01	9.938E-01	2.630E-03	2.405E-03	8.897E-04
.233	.250	5.508E-01	5.499E-01	9.825E-01	6.895E-03	5.890E-03	2.193E-03
.283	.300	5.431E-01	5.403E-01	9.625E-01	1.590E-02	1.214E-02	4.747E-03
.327	.350	5.327E-01	6.122E-01	9.448E-01	3.644E-02	2.274E-02	1.153E-02
.370	.400	5.158E-01	6.187E-01	9.105E-01	7.716E-02	3.823E-02	2.041E-02
.412	.450	4.935E-01	5.877E-01	8.565E-01	1.570E-01	5.885E-02	3.102E-02
.454	.500	4.650E-01	5.382E-01	7.795E-01	2.130E-01	8.383E-02	4.409E-02
.494	.550	4.093E-01	4.739E-01	6.775E-01	6.182E-01	1.109E-01	5.844E-02
.533	.600	3.540E-01	4.165E-01	5.555E-01	1.223E+00	1.365E-01	7.285E-02
.552	.625	3.235E-01	3.904E-01	4.915E-01	1.730E+00	1.472E-01	7.955E-02
.572	.650	2.915E-01	3.689E-01	4.245E-01	2.464E+00	1.556E-01	8.621E-02
.590	.675	2.596E-01	3.545E-01	3.575E-01	3.551E+00	1.612E-01	9.295E-02
.609	.700	2.255E-01	3.487E-01	2.935E-01	5.201E+00	1.635E-01	9.703E-02
.627	.725	1.927E-01	3.575E-01	2.335E-01	7.780E+00	1.620E-01	1.007E-01
.646	.750	1.611E-01	3.845E-01	1.805E-01	1.195E+01	1.580E-01	1.027E-01
.681	.800	1.038E-01	4.576E-01	9.635E-02	2.627E+01	1.416E-01	8.223E-02
.716	.850	5.801E-02	2.370E-01	3.885E-02	2.299E+01	1.124E-01	2.515E-02
.750	.900	2.615E-02	4.385E-02	8.565E-03	7.615E+00	7.643E-02	1.434E-02
.782	.950	8.285E-03	7.401E-03	1.155E-04	2.168E+00	4.262E-02	1.124E-02
.814	1.000	1.550E-03	8.445E-03	3.625E-03	6.549E-01	1.886E-02	5.727E-03
.845	1.050	1.371E-03	1.375E-02	9.005E-03	3.694E-01	8.583E-03	1.464E-03
.875	1.100	3.071E-03	1.493E-02	1.014E-02	4.007E-01	9.070E-03	1.602E-04
.905	1.150	2.671E-03	1.154E-02	6.701E-03	4.200E-01	1.329E-02	1.049E-03
.933	1.200	2.576E-03	6.599E-03	2.295E-03	3.357E-01	1.461E-02	2.265E-03
.960	1.250	9.242E-04	2.994E-03	2.271E-04	1.911E-01	1.129E-02	2.422E-03
.986	1.300	5.667E-05	1.945E-03	7.504E-04	7.146E-02	6.465E-03	1.603E-03
1.036	1.400	7.752E-04	2.332E-03	1.481E-03	3.056E-02	4.947E-03	5.832E-04
1.125	1.600	1.349E-03	7.111E-04	6.325E-04	3.852E-03	2.819E-03	3.211E-04
1.199	1.800	6.915E-05	3.662E-04	3.665E-04	5.378E-04	2.010E-03	2.235E-04
1.253	2.000	5.435E-05	2.331E-04	1.294E-04	6.808E-04	1.623E-03	1.670E-04

PHASE (MOTION-AVEHT)

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
193	200	-82.1	90.0	.0	83.4	94.9	7.2
234	250	-88.0	90.0	.0	79.9	92.5	7.4
283	300	-91.8	90.0	.0	76.0	90.8	7.2
327	350	-94.8	91.0	-2	72.2	88.8	4.5
370	400	-97.1	90.9	-4	67.5	87.4	5.3
412	450	-99.2	90.4	-5	63.0	86.1	7.0
454	500	-101.1	89.5	-5	59.3	84.9	8.9
494	550	-103.0	88.1	-4	56.9	83.5	11.1
533	600	-104.9	86.0	-3	55.3	82.0	13.6
572	650	-105.9	84.7	-3	53.3	81.1	15.0
593	700	-107.0	83.2	-3	51.3	80.2	16.6
627	750	-108.0	81.8	-3	49.2	79.2	18.6
646	800	-109.2	80.6	-3	47.2	78.0	21.1
681	850	-110.4	80.1	-4	45.2	76.7	24.3
715	900	-111.8	81.8	-5	43.5	75.3	29.2
753	950	-114.8	93.1	-1.0	40.9	71.8	46.1
782	1000	-118.8	136.8	-2.0	153.8	67.2	53.0
814	1050	-124.7	169.4	-5.4	-170.8	60.7	30.5
845	1100	-136.2	-139.6	-66.3	-149.9	50.4	26.3
875	1150	-171.0	-78.8	-170.7	-111.8	31.3	30.7
903	1200	113.7	-55.9	-175.2	-67.2	-6.8	43.8
933	1250	85.8	-42.7	-177.8	-34.2	-52.9	123.4
963	1300	74.8	-32.3	178.8	-15.5	-81.2	-169.4
986	1350	67.3	-16.3	170.6	-2.4	-100.0	-153.1
1035	1400	58.5	12.1	123.2	10.9	-119.0	-140.6
1065	1450	22.3	56.8	31.6	32.1	-146.2	-123.2
1099	1500	-119.8	120.9	11.1	138.3	125.7	-31.9
1125	1550	70.6	-73.0	-156.5	-52.3	-19.2	103.8
1169	1600	-98.1	93.1	25.6	103.1	173.3	-82.0
1258	2000	74.2	-79.7	-154.2	-33.9	-14.5	113.1

REC = 17

HEADING = 45. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SKAY	HEAVE	ROLL	PITCH	YAW
.185	.200	6.576E-01	6.041E-01	9.904E-01	2.454E-03	2.236E-03	5.798E-04
.227	.250	6.689E-01	6.131E-01	9.767E-01	6.545E-03	5.475E-03	1.635E-03
.267	.300	6.831E-01	6.273E-01	9.551E-01	1.477E-02	1.139E-02	4.125E-03
.315	.350	7.044E-01	6.342E-01	9.277E-01	3.145E-02	2.121E-02	1.085E-02
.341	.400	7.129E-01	7.229E-01	8.902E-01	6.390E-02	3.583E-02	2.225E-02
.375	.450	7.388E-01	7.139E-01	8.331E-01	1.235E-01	5.499E-02	3.728E-02
.407	.500	6.884E-01	6.715E-01	7.545E-01	2.231E-01	7.771E-02	5.595E-02
.433	.550	6.436E-01	6.061E-01	6.548E-01	4.077E-01	1.018E-01	7.785E-02
.465	.600	5.361E-01	5.253E-01	5.385E-01	6.930E-01	1.239E-01	1.015E-01
.480	.625	5.504E-01	4.816E-01	4.765E-01	8.862E-01	1.330E-01	1.132E-01
.493	.650	5.680E-01	4.388E-01	4.137E-01	1.117E+00	1.430E-01	1.242E-01
.505	.675	4.618E-01	3.919E-01	3.513E-01	1.387E+00	1.444E-01	1.342E-01
.518	.700	4.126E-01	3.477E-01	2.910E-01	1.694E+00	1.59E-01	1.425E-01
.530	.725	3.614E-01	3.051E-01	2.342E-01	2.031E+00	1.442E-01	1.483E-01
.541	.750	3.095E-01	2.665E-01	1.823E-01	2.386E+00	1.393E-01	1.525E-01
.562	.800	2.090E-01	1.921E-01	9.695E-02	3.077E+00	1.202E-01	1.495E-01
.582	.850	1.231E-01	1.315E-01	4.075E-02	3.549E+00	9.114E-02	1.335E-01
.593	.900	5.741E-02	8.265E-02	1.015E-02	3.548E+00	6.101E-02	1.035E-01
.615	.950	1.888E-02	4.265E-02	4.349E-04	2.949E+00	3.370E-02	6.656E-02
.623	1.000	3.977E-03	1.295E-02	1.550E-03	2.051E+00	1.525E-02	3.151E-02
.641	1.050	4.335E-03	4.086E-04	4.875E-03	1.775E+00	6.309E-03	8.131E-03
.651	1.100	9.686E-03	1.402E-02	5.877E-03	3.368E+00	6.102E-03	3.345E-03
.653	1.150	1.184E-02	4.925E-02	4.005E-03	6.955E+00	7.758E-03	1.445E-02
.665	1.200	9.166E-03	7.772E-02	1.455E-03	1.014E+01	8.127E-03	2.803E-02
.671	1.250	3.095E-03	6.916E-02	2.804E-04	9.107E+00	6.160E-03	3.012E-02
.673	1.300	1.239E-04	3.037E-02	6.423E-04	5.286E+00	3.584E-03	1.865E-02
.673	1.400	3.734E-03	7.793E-03	1.035E-03	1.397E+00	2.483E-03	3.695E-03
.680	1.600	1.156E-03	1.735E-03	5.054E-04	1.593E-02	1.115E-03	1.375E-03
.597	1.800	9.632E-04	2.912E-03	3.643E-04	7.102E-02	5.966E-04	1.557E-03
.515	2.000	1.454E-03	3.233E-03	2.142E-04	1.846E-02	3.554E-04	8.195E-04

PHASE (MOTION-WAVEHT)

WE	HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	.200	-81.9	89.9	.1	31.7	94.1	15.2
.227	.250	.250	-87.8	89.9	.1	72.9	92.0	14.1
.267	.300	.300	-91.5	89.8	.1	73.6	90.2	12.0
.305	.350	.350	-94.5	90.3	-1	69.6	88.3	9.3
.341	.400	.400	-96.7	90.4	-3	64.7	86.5	8.5
.375	.450	.450	-98.7	89.9	-5	59.6	85.0	9.1
.407	.500	.500	-100.6	89.1	-6	55.0	83.5	10.3
.438	.550	.550	-102.5	87.8	-8	51.2	81.8	11.6
.466	.600	.600	-104.4	85.9	-10	48.4	79.9	13.0
.493	.625	.625	-105.3	84.7	-11	47.4	78.7	13.7
.506	.650	.650	-106.3	83.3	-13	46.6	77.5	14.5
.518	.675	.675	-107.4	81.7	-15	45.1	76.2	15.3
.532	.700	.700	-108.5	79.9	-18	45.8	74.7	16.2
.541	.725	.725	-109.8	77.8	-21	45.2	73.1	17.1
.562	.800	.800	-111.1	75.5	-25	47.9	71.3	18.1
.582	.850	.850	-114.2	70.0	-37	51.4	66.9	20.3
.599	.900	.900	-118.3	63.9	-57	57.7	61.3	23.0
.615	.950	.950	-124.7	57.7	-10.0	59.1	53.6	26.4
.629	1.000	1.000	-137.3	53.0	-32.1	91.2	42.0	31.4
.641	1.050	1.050	-172.9	53.0	-171.9	132.2	22.5	39.9
.651	1.100	1.100	112.9	123.8	177.6	173.5	-13.0	62.0
.659	1.150	1.150	86.9	-148.9	171.7	-162.2	-58.2	147.5
.666	1.200	1.200	76.2	-142.3	164.2	-146.6	-90.4	-157.7
.670	1.250	1.250	63.9	-137.6	149.5	-133.7	-112.9	-152.7
.673	1.300	1.300	60.8	-132.7	99.9	-118.7	-135.1	-141.9
.675	1.400	1.400	22.1	-126.1	22.2	-11.5	-165.1	-129.3
.682	1.500	1.500	-118.6	21.3	-15.6	33.0	107.4	-30.6
.697	1.600	1.600	63.6	-65.7	172.4	160.0	-49.0	56.8
.515	1.800	1.800	-107.1	117.7	-12.0	130.6	-145.3	-145.3
	2.000	2.000	63.8	-76.7	153.4	-44.8	-70.4	44.6

REC = 18	HEADING =	45. DEG	SHIP SPEED =	15. KNOTS		
		RAO	(MOTION/VALENT)**2			
WE	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
178	7.715E-01	6.901E-01	9.863E-01	2.505E-03	1.981E-03	2.197E-04
200	8.210E-01	7.275E-01	9.720E-01	6.391E-03	5.052E-03	2.007E-04
219	9.357E-01	7.635E-01	9.480E-01	1.415E-02	1.060E-02	2.704E-04
250	9.235E-01	7.856E-01	9.097E-01	2.047E-02	1.923E-02	6.610E-03
282	1.116E+00	8.674E-01	8.636E-01	5.503E-02	3.284E-02	1.879E-02
311	1.116E+00	8.955E-01	8.084E-01	1.327E-01	5.095E-02	3.683E-02
337	1.199E+00	8.785E-01	7.279E-01	1.815E-01	7.117E-02	6.159E-02
361	1.111E+00	8.225E-01	6.295E-01	2.997E-01	9.257E-02	9.351E-02
500	1.155E+00	7.335E-01	5.150E-01	4.694E-01	1.117E-01	1.318E-01
600	1.231E+00	6.780E-01	4.551E-01	5.693E-01	1.192E-01	1.526E-01
625	9.855E-01	6.175E-01	3.349E-01	6.736E-01	1.248E-01	1.737E-01
650	9.801E-01	5.527E-01	3.354E-01	7.288E-01	1.280E-01	1.945E-01
675	8.115E-01	4.851E-01	2.761E-01	8.835E-01	1.287E-01	2.140E-01
700	7.942E-01	4.175E-01	2.243E-01	9.554E-01	1.264E-01	2.312E-01
725	6.987E-01	3.504E-01	1.751E-01	1.052E+00	1.214E-01	2.451E-01
800	5.24E-01	2.264E-01	4.17E-02	1.121E+00	7.035E-02	2.585E-01
850	3.64E-01	1.284E-01	3.976E-02	1.033E+00	7.024E-02	2.473E-01
900	1.727E-01	6.532E-02	1.058E-02	7.931E-01	5.101E-02	2.092E-01
950	5.00E-02	3.745E-02	6.43E-04	4.812E-01	2.760E-02	1.499E-01
1000	1.45E-02	3.525E-02	1.242E-02	2.245E-01	1.204E-02	8.350E-02
1050	1.775E-02	4.175E-02	4.319E-03	1.035E-01	5.022E-03	2.898E-03
1100	4.725E-02	4.042E-02	5.239E-03	1.444E-01	4.027E-03	2.426E-03
1150	7.270E-02	2.544E-02	3.527E-03	2.413E-01	5.060E-03	7.453E-03
1200	6.67E-02	6.708E-03	1.244E-03	2.866E-01	5.134E-03	3.097E-03
1250	2.11E-02	2.219E-02	2.512E-04	2.247E-01	3.568E-03	4.933E-02
1300	1.354E-02	2.155E-02	6.240E-04	1.174E-01	1.890E-03	4.438E-02
1400	7.152E-02	5.421E-02	9.136E-04	4.312E-03	1.039E-03	1.407E-02
1500	1.231E-01	4.451E-01	4.679E-04	8.519E-02	2.050E-04	6.656E-02
1600	2.031E-02	3.516E-03	1.671E-04	2.500E-02	3.532E-04	4.502E+00
2000	2.031E-02	7.361E-02	1.670E-04	1.37E-02	6.519E-05	9.772E-03

PHASE (MOTION-WAVEHT)

ME	178	SWAY	HEAVE	ROLL	PITCH	YAW
215	89.8	89.7	1	79.9	93.1	33.6
250	89.7	89.7	1	75.8	90.9	24.6
300	89.6	89.6	1	71.3	89.4	19.5
350	89.4	89.4	1	66.3	88.2	17.4
400	89.7	89.7	2	61.8	85.9	13.6
450	89.3	89.3	4	56.8	84.0	12.9
500	89.5	89.5	7	52.1	82.2	13.2
550	87.3	87.3	11	48.0	80.2	13.8
600	85.6	85.6	16	44.7	77.8	14.6
625	84.5	84.5	19	43.4	75.5	15.0
650	83.2	83.2	23	42.2	73.6	15.5
675	81.7	81.7	27	41.3	71.9	16.0
700	80.0	80.0	32	40.6	70.1	16.5
725	77.9	77.9	38	39.7	68.1	17.1
750	75.4	75.4	44	39.8	66.3	17.6
800	68.7	68.7	52	41.1	63.3	18.8
850	58.0	58.0	62	44.2	57.4	20.2
900	39.8	39.8	77	51.2	49.4	21.8
950	9.7	9.7	97	67.4	37.8	23.9
1000	23.8	23.8	175.8	105.1	18.7	26.8
1050	46.7	46.7	171.4	148.0	16.5	32.5
1100	60.9	60.9	155.1	168.3	96.3	61.2
1150	72.1	72.1	138.2	177.4	96.3	173.9
1200	80.3	80.3	78.8	177.3	118.3	161.2
1250	84.5	84.5	8.6	172.3	139.2	156.2
1300	91.8	91.8	23.4	168.1	160.9	152.1
1350	102.8	102.8	155.5	159.8	104.1	109.2
1400	108.4	108.4	25.1	124.6	26.9	3.0
1450	114.0	114.0	148.7	61.5	121.0	177.1
1500	120.0	120.0	82.8		61.4	1.0

REC = 19

HEADING = 45 DEG SHIP SPEED = 20 KNOTS
RAO (MOTION/HAVENT)**2

ME	X	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	9.112E-01	8.10E-01	9.832E-01	2.501E-03	1.723E-03	8.545E-05
.204	.250	1.020E+00	8.96E-01	9.681E-01	6.358E-03	4.608E-03	3.494E-04
.233	.300	1.151E+00	9.723E-01	9.408E-01	1.391E-02	9.61E-03	1.24E-03
.253	.350	1.24E+00	1.05E+00	9.021E-01	2.768E-02	1.783E-02	3.78E-03
.281	.400	1.302E+00	1.11E+00	8.453E-01	5.119E-02	2.901E-02	8.96E-03
.300	.450	1.301E+00	1.20E+00	7.813E-01	9.11E-02	4.498E-02	2.44E-02
.314	.500	1.37E+00	1.25E+00	6.990E-01	1.536E-01	6.733E-02	4.91E-02
.325	.550	2.044E+00	1.24E+00	5.988E-01	2.431E-01	8.01E-02	8.53E-02
.335	.600	2.08E+00	1.18E+00	4.861E-01	3.532E-01	9.810E-02	1.34E-01
.355	.650	2.08E+00	1.12E+00	4.274E-01	4.220E-01	1.042E-01	1.84E-01
.366	.700	2.25E+00	1.05E+00	3.687E-01	4.865E-01	1.13E-01	1.96E-01
.377	.750	2.21E+00	9.72E-01	3.112E-01	5.483E-01	1.16E-01	2.31E-01
.396	.800	2.03E+00	8.78E-01	2.562E-01	6.032E-01	1.03E-01	2.67E-01
.425	.850	2.17E+00	7.74E-01	2.049E-01	6.466E-01	1.78E-01	3.04E-01
.455	.900	2.18E+00	6.64E-01	1.584E-01	6.744E-01	1.02E-01	3.39E-01
.484	.950	1.119E+00	4.43E-01	8.290E-02	6.700E-01	8.91E-02	4.00E-01
.514	.1000	1.00E+00	2.55E-01	3.343E-02	5.787E-01	6.78E-02	4.35E-01
.543	.1050	8.97E-01	1.44E-01	2.154E-02	4.196E-01	4.03E-01	4.31E-01
.572	.1100	3.75E-01	1.16E-01	2.154E-02	2.403E-01	2.19E-02	3.85E-01
.601	.1150	5.66E-02	3.16E-01	1.389E-02	1.003E-01	9.54E-03	3.11E-01
.630	.1200	1.41E-01	6.47E-01	4.18E-03	2.522E-02	3.21E-03	2.02E-01
.659	.1250	9.09E-01	1.10E+00	4.750E-03	2.335E-02	2.164E-03	9.29E-02
.688	.1300	2.83E+00	1.57E+00	2.99E-03	6.728E-02	2.726E-03	2.60E-02
.717	.1350	6.39E+00	1.87E+00	8.98E-04	1.130E-01	3.054E-03	2.55E-02
.746	.1400	1.301E+01	1.56E+00	1.56E-03	1.211E-01	2.658E-03	7.54E-02
.775	.1450	2.87E+01	1.53E+01	9.394E-04	4.779E-04	2.192E-03	1.86E-01
.804	.1500	6.844E+01	9.23E+01	1.182E-03	4.779E-04	5.13E-04	7.87E-01
.833	.1550	1.77E-02	5.36E-02	4.457E-04	5.976E-03	2.09E-04	7.94E-03
.862	.1600	9.452E-04	3.89E-03	2.860E-04	9.122E-02	5.085E-04	1.34E-03
.891	.1650	1.601E-04	3.37E-04	9.972E-05	5.209E-04	7.680E-04	2.81E-04

PHASE (MOTION-WAVEHT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
170	200	-8.5	89.7	.1	78.2	91.8	92.7
180	250	-11.5	89.6	.1	73.8	89.0	49.8
200	300	-9.0	89.5	.1	68.7	88.2	37.2
220	350	-9.5	89.2	-.0	63.4	86.8	28.8
240	400	-9.5	88.6	-.1	58.1	85.6	25.2
260	450	-9.4	88.6	-.5	53.2	83.2	20.7
280	500	-9.0	87.8	-.9	48.4	81.0	19.2
300	550	-10.6	86.7	-1.4	44.2	78.7	18.8
320	600	-10.2	85.0	-2.1	40.6	76.1	18.8
340	650	-10.9	82.9	-2.5	39.1	74.7	18.9
360	700	-10.7	82.6	-2.9	37.7	73.2	19.1
380	750	-10.5	81.1	-3.6	36.5	71.6	19.2
400	800	-10.4	79.3	-4.1	35.4	69.9	19.4
420	850	-10.2	77.0	-4.7	34.5	68.0	19.6
440	900	-10.1	74.3	-5.5	33.7	66.0	19.7
460	950	-10.2	66.2	-7.2	32.6	64.6	19.9
480	1000	-11.8	51.6	-9.9	32.0	56.2	19.6
500	1050	-12.8	23.2	-12.8	32.3	49.3	18.7
520	1100	-12.8	18.6	-27.0	33.8	39.9	15.3
540	1150	-15.2	-48.8	-169.3	41.4	24.3	14.2
560	1200	107.7	-64.6	162.6	69.4	-4.7	9.5
580	1250	8.7	-74.4	156.9	139.3	-50.2	-5
600	1300	8.4	-82.3	149.2	165.6	-83.5	-32.3
620	1350	8.2	-88.7	132.6	171.8	-100.6	-109.6
640	1400	8.6	-90.7	50.6	172.6	-100.2	-146.6
660	1450	8.9	36.9	-14.3	170.1	-111.3	-179.2
680	1500	-103.7	82.5	-43.6	142.4	-168.6	166.9
700	1550	-63.9	-82.5	160.1	-50.3	-40.9	13.7
720	1600	-102.2	122.4	-1.1	163.7	131.6	143.9
740	1650	65.8	-91.8	-146.8	-135.3	-46.4	88.1

REC = 23 HEADING = 45. DEG SHIP SPEED = 25. KNOTS

RE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
153	200	1.085E+00	9.779E-01	9.875E-01	2.517E-03	1.483E-03	1.872E-04
192	250	1.283E+00	1.139E+00	9.633E-01	6.335E-03	4.150E-03	2.572E-04
215	300	1.553E+00	1.511E+00	9.366E-01	1.394E-02	8.819E-03	5.567E-04
236	350	1.898E+00	1.877E+00	8.995E-01	2.755E-02	1.628E-02	1.502E-03
251	400	2.333E+00	1.723E+00	8.388E-01	5.062E-02	2.685E-02	4.089E-03
262	450	2.863E+00	1.952E+00	7.695E-01	8.715E-02	4.003E-02	9.683E-03
263	500	3.515E+00	2.191E+00	6.743E-01	1.411E-01	5.497E-02	2.043E-02
269	550	4.304E+00	2.431E+00	5.703E-01	2.145E-01	7.007E-02	3.924E-02
265	600	5.245E+00	2.659E+00	4.565E-01	3.048E-01	8.304E-02	6.954E-02
262	625	5.778E+00	2.763E+00	4.005E-01	3.537E-01	8.792E-02	8.999E-02
253	650	6.353E+00	2.857E+00	3.433E-01	4.028E-01	9.128E-02	1.143E-01
252	675	6.973E+00	2.939E+00	2.884E-01	4.496E-01	9.284E-02	1.425E-01
245	700	7.637E+00	3.006E+00	2.354E-01	4.913E-01	9.241E-02	1.741E-01
237	725	8.348E+00	3.057E+00	1.865E-01	5.251E-01	8.988E-02	2.093E-01
223	750	9.108E+00	3.091E+00	1.425E-01	5.478E-01	8.527E-02	2.437E-01
205	800	1.077E+01	3.088E+00	7.318E-02	5.584E-01	7.230E-02	3.243E-01
179	850	1.266E+01	3.001E+00	2.795E-02	5.066E-01	5.448E-02	3.890E-01
143	900	1.475E+01	2.798E+00	5.842E-03	4.014E-01	3.655E-02	4.317E-01
112	950	1.699E+01	2.424E+00	2.755E-04	2.512E-01	2.144E-02	4.036E-01
072	1.000	1.939E+01	3.041E+00	3.183E-03	1.289E-01	1.190E-02	4.053E-01
027	1.050	2.563E+02	5.508E+02	9.441E-03	3.512E-02	1.118E-02	1.311E+00
023	1.100	3.978E+03	5.546E+03	1.002E-02	3.645E-03	8.678E-03	5.301E+00
073	1.150	5.795E+01	5.509E+01	3.155E-03	4.706E-02	1.444E-03	4.320E-01
136	1.200	5.154E+00	1.917E+00	7.308E-04	1.173E-01	2.579E-03	1.555E-02
200	1.250	4.486E-01	6.574E-03	9.325E-05	1.409E-01	2.295E-03	5.998E-02
263	1.300	5.529E-03	7.506E-02	4.952E-04	9.726E-02	1.319E-03	4.490E-02
413	1.400	2.195E-02	1.511E-02	8.147E-04	2.209E-02	1.155E-03	1.379E-03
775	1.500	3.949E-04	2.496E-03	2.495E-04	3.512E-02	1.349E-03	5.432E-04
1.208	1.800	6.920E-05	3.033E-04	6.844E-06	6.309E-04	1.275E-03	2.438E-04
1.712	2.000	1.077E-05	6.551E-05	2.447E-04	3.930E-04	4.602E-04	5.975E-05

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	-2.00	-81.4	89.6	.1	77.1	87.3	137.3
.192	-2.00	-87.2	89.5	.0	72.2	85.8	108.2
.216	-3.00	-90.7	89.4	-0.0	68.7	85.7	84.5
.236	-3.00	-93.1	89.1	-2	61.1	84.7	61.4
.251	-4.00	-95.0	88.8	-4	55.6	83.2	47.6
.262	-4.00	-96.6	88.2	-7	50.3	81.6	40.7
.263	-5.00	-97.9	87.5	-1.1	45.6	79.7	36.4
.269	-5.00	-99.2	86.5	-1.6	41.3	77.4	33.6
.265	-5.00	-100.4	85.2	-2.4	37.6	74.8	31.9
.262	-5.00	-100.9	84.4	-2.8	33.9	73.4	31.2
.258	-5.00	-101.4	83.5	-3.3	30.4	72.0	30.7
.252	-6.00	-102.0	82.4	-3.9	26.9	70.4	30.3
.245	-7.00	-102.5	81.3	-4.4	23.6	68.8	30.0
.237	-7.00	-102.9	79.9	-5.0	20.4	67.3	29.7
.223	-7.00	-103.3	78.4	-5.5	17.3	65.7	29.4
.206	-8.00	-104.3	74.4	-6.7	14.2	61.9	28.8
.173	-8.00	-105.2	69.1	-7.0	11.1	58.5	27.8
.148	-9.00	-106.6	61.1	-7.7	8.0	54.7	26.2
.112	-9.00	-108.8	46.5	-8.5	5.0	52.9	22.5
.072	-10.00	-121.0	-8.7	-10.3	2.5	49.8	17.4
.023	-10.00	-117.5	-69.0	-12.4	0.3	60.0	10.9
.023	-10.00	92.0	-83.0	-16.5	103.9	55.8	2.1
.073	-10.00	85.3	-85.8	-13.6	167.6	-48.9	-9.8
.136	-10.00	81.1	-88.5	-13.4	172.5	-92.6	-85.4
.203	-10.00	76.6	-172.7	-14.1	174.6	-118.5	-153.9
.269	-10.00	67.2	110.5	-2.8	178.7	-150.8	-158.7
.419	-10.00	-116.2	110.1	-18.5	-57.0	108.2	-62.3
.775	-10.00	63.0	-83.5	-18.5	-114.9	-39.1	86.9
1.208	-10.00	-102.1	101.8	-172.7	98.6	171.1	-76.4
1.712	-20.00	55.7	-55.4	-173.6	-1.9	32.4	145.3

REC = 21

HEADING = 60. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/NAVEHT)**2

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
195	200	2.334E-01	7.983E-01	9.975E-01	3.970E-03	1.184E-03	6.692E-04
242	230	2.775E-01	7.916E-01	9.915E-01	1.038E-02	2.916E-03	1.609E-03
283	300	2.703E-01	8.166E-01	9.824E-01	2.398E-02	6.104E-03	3.668E-03
334	360	2.944E-01	8.183E-01	9.798E-01	5.386E-02	1.170E-02	8.343E-03
373	400	2.976E-01	8.389E-01	9.692E-01	1.113E-01	2.015E-02	1.537E-02
423	450	2.887E-01	9.027E-01	9.458E-01	2.223E-01	3.194E-02	2.749E-02
467	500	2.735E-01	9.511E-01	9.055E-01	4.417E-01	4.726E-02	3.342E-02
510	550	2.281E-01	7.966E-01	8.455E-01	8.946E-01	6.576E-02	4.533E-02
553	600	2.056E-01	7.488E-01	7.648E-01	1.895E+00	8.641E-02	5.894E-02
595	625	1.957E-01	7.359E-01	7.158E-01	2.833E+00	9.700E-02	6.647E-02
615	650	1.822E-01	7.308E-01	6.635E-01	4.343E+00	1.674E-01	7.438E-02
635	675	1.733E-01	7.615E-01	6.068E-01	6.864E+00	1.172E-01	8.238E-02
655	700	1.608E-01	8.166E-01	5.478E-01	1.121E+01	1.262E-01	8.955E-02
675	725	1.493E-01	9.288E-01	4.994E-01	1.880E+01	1.369E-01	9.504E-02
695	750	1.374E-01	1.031E+00	4.503E-01	2.981E+01	1.463E-01	8.824E-02
715	800	1.195E-01	7.615E-01	3.506E-01	3.619E+01	1.622E-01	3.815E-02
735	850	8.672E-02	3.122E-01	2.545E-01	1.875E+01	1.691E-01	3.315E-02
755	900	6.118E-02	1.316E-01	1.675E-01	9.186E+00	1.633E-01	4.175E-02
775	950	4.557E-02	5.422E-02	9.715E-02	4.770E+00	1.503E-01	4.335E-02
795	1000	2.933E-02	1.817E-02	4.634E-02	2.484E+00	1.255E-01	2.821E-02
815	1050	1.788E-02	3.145E-03	1.585E-02	1.217E+00	9.509E-02	2.902E-02
835	1100	6.133E-03	6.485E-04	2.723E-03	5.312E-01	6.427E-02	1.888E-02
855	1150	2.153E-03	4.265E-03	1.093E-03	2.047E-01	3.447E-02	9.692E-03
875	1200	8.944E-04	8.822E-03	4.704E-03	9.486E-02	2.142E-02	3.305E-03
895	1250	1.702E-03	1.188E-02	9.499E-03	9.890E-02	1.425E-02	5.819E-04
915	1300	1.592E-03	1.022E-02	9.092E-03	1.353E-01	1.485E-02	6.61E-04
935	1400	1.275E-03	3.755E-03	2.835E-03	1.332E-01	2.031E-02	2.915E-03
955	1500	7.356E-05	2.014E-02	7.600E-04	6.147E-03	7.660E-03	4.588E-04
975	1600	5.360E-05	4.166E-04	4.881E-04	5.510E-03	4.430E-03	7.321E-04
995	1700	4.631E-05	3.138E-04	4.4130E-04	6.329E-03	2.359E-03	4.375E-04

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
195	200	-78.0	90.0	.0	85.6	97.4	7.2
222	250	-65.7	90.0	.0	83.3	94.3	7.6
283	300	-90.5	90.3	.0	80.8	92.2	6.2
334	350	-94.1	91.1	.3	78.4	90.0	2.5
373	400	-96.8	91.0	.4	75.0	88.6	3.3
423	450	-99.1	90.6	.5	71.4	87.6	5.3
467	500	-101.1	89.9	.5	68.3	85.8	7.6
510	550	-103.1	88.9	.4	66.3	85.9	10.2
553	600	-104.9	87.5	.3	66.0	84.9	13.2
597	625	-105.9	86.7	.2	66.9	84.3	15.1
645	650	-106.9	86.0	.2	68.9	83.7	17.5
685	675	-107.9	85.7	.2	72.5	83.1	20.6
725	700	-108.9	85.3	.2	78.4	82.4	24.8
765	725	-110.0	89.8	.2	88.5	81.6	31.2
805	750	-111.1	97.2	.2	104.2	80.8	39.4
845	800	-113.4	120.7	.3	146.8	78.9	43.4
885	850	-115.0	131.9	.6	175.2	75.8	21.2
924	900	-118.0	133.4	1.1	171.2	74.1	15.5
963	950	-122.6	133.9	2.2	163.2	73.8	16.1
1000	1000	-127.2	136.9	4.4	156.5	66.6	18.3
1035	1050	-133.8	150.2	9.8	149.0	60.8	21.5
1071	1100	-144.3	110.4	29.6	137.8	52.6	25.8
1106	1150	-164.9	69.7	121.2	117.4	40.0	32.4
1141	1200	158.8	-59.5	154.6	79.9	19.6	44.2
1175	1250	104.1	-52.4	161.2	39.5	11.2	80.3
1208	1300	80.1	45.7	163.3	16.9	43.1	165.9
1243	1400	60.1	-23.6	165.8	4.3	82.7	155.0
1274	1500	-93.2	113.7	33.2	126.2	173.5	61.0
1305	1600	-144.2	-125.2	149.5	154.4	81.1	49.5
1335	1700	34.4	-6.1	77.9	4.9	51.7	163.8

REC = 22

HEADING = 60. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 10. KNOTS

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	3.261E-01	9.566E-01	9.946E-01	3.871E-03	1.050E-03	4.549E-04
.234	.250	3.170E-01	8.637E-01	9.868E-01	9.979E-03	2.656E-03	1.205E-03
.276	.300	3.176E-01	8.711E-01	9.741E-01	2.237E-02	5.04E-03	2.825E-03
.318	.350	3.198E-01	9.905E-01	9.671E-01	4.810E-02	1.097E-02	8.669E-03
.358	.400	3.206E-01	1.044E+00	9.532E-01	9.636E-02	1.915E-02	1.665E-02
.397	.450	3.188E-01	1.035E+00	9.269E-01	1.847E-01	3.042E-02	2.665E-02
.434	.500	3.152E-01	9.965E-01	8.850E-01	3.457E-01	4.484E-02	3.912E-02
.471	.550	3.030E-01	9.395E-01	8.254E-01	6.395E-01	6.197E-02	5.433E-02
.506	.600	2.877E-01	8.755E-01	7.476E-01	1.178E+00	8.684E-02	7.235E-02
.522	.625	2.792E-01	8.439E-01	7.023E-01	1.598E+00	9.045E-02	8.225E-02
.539	.650	2.680E-01	8.135E-01	6.532E-01	2.170E+00	9.905E-02	9.256E-02
.555	.675	2.542E-01	7.865E-01	6.011E-01	2.951E+00	1.005E-01	1.035E-01
.571	.700	2.404E-01	7.645E-01	5.467E-01	4.018E+00	1.169E-01	1.142E-01
.587	.725	2.264E-01	7.492E-01	4.909E-01	5.479E+00	1.266E-01	1.255E-01
.602	.750	2.093E-01	7.423E-01	4.345E-01	7.481E+00	1.298E-01	1.354E-01
.632	.800	1.747E-01	7.585E-01	3.245E-01	1.385E+01	1.362E-01	1.512E-01
.660	.850	1.393E-01	7.975E-01	2.328E-01	2.409E+01	1.366E-01	1.535E-01
.687	.900	1.237E-01	7.135E-01	1.541E-01	2.243E+01	1.331E-01	1.204E-01
.713	.950	7.146E-02	4.349E-01	9.073E-02	2.816E+01	1.190E-01	7.455E-02
.738	1.000	4.140E-02	1.805E-01	4.526E-02	1.707E+01	9.688E-02	4.965E-02
.761	1.050	2.995E-02	5.305E-02	1.732E-02	8.510E+00	7.367E-02	3.725E-02
.782	1.100	1.871E-02	1.055E-02	4.095E-03	3.675E+00	4.966E-02	2.625E-02
.803	1.150	3.944E-03	8.224E-03	8.614E-04	1.365E+00	3.026E-02	1.515E-02
.822	1.200	1.933E-03	1.941E-02	2.491E-03	5.537E-01	1.728E-02	6.175E-03
.841	1.250	2.444E-03	2.955E-02	4.822E-03	5.141E-01	1.088E-02	1.125E-03
.856	1.300	3.199E-03	3.202E-02	5.595E-03	7.465E-01	9.628E-03	3.705E-04
.886	1.400	3.309E-03	1.725E-02	2.704E-03	8.921E-01	1.095E-02	5.005E-03
.928	1.600	3.561E-04	5.775E-03	8.539E-04	5.179E-02	4.644E-03	1.355E-03
.950	1.900	2.159E-04	1.680E-02	2.694E-04	1.123E-01	2.922E-03	2.515E-03
.950	2.000	3.813E-04	2.330E-03	7.495E-05	9.902E-02	1.775E-03	1.295E-03

PHASE (MOTION-WAVEHT)

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
193	200	-77.9	89.9	.1	84.7	95.1	14.5
234	250	-65.6	89.9	.1	82.2	93.3	13.9
276	300	-90.3	89.9	.1	79.4	91.5	12.5
318	350	-93.8	90.6	.1	77.5	88.9	7.0
356	400	-96.5	90.7	.1	74.2	87.4	6.4
397	450	-98.8	90.4	.5	70.4	85.3	7.3
434	500	-100.8	89.7	.5	66.9	85.3	8.8
471	550	-102.7	88.8	.6	64.1	84.3	10.4
509	600	-104.6	87.5	.7	62.3	83.0	12.2
522	625	-105.6	86.7	.8	61.9	82.3	13.2
539	650	-106.5	85.3	.9	61.9	81.5	14.3
555	675	-107.5	84.9	1.0	62.4	80.7	15.5
571	700	-108.6	84.0	1.1	63.4	79.7	16.9
587	725	-109.6	83.1	1.3	65.1	78.7	18.4
602	750	-110.8	82.4	1.6	67.7	77.5	20.2
622	800	-113.2	82.7	2.3	75.1	74.9	25.1
660	850	-116.0	88.3	3.3	91.5	71.9	32.8
687	900	-119.2	101.2	4.6	114.4	68.5	40.7
713	950	-123.1	117.7	6.7	139.3	63.8	42.0
738	1000	-128.1	132.8	10.0	180.0	58.2	35.9
761	1050	-135.4	149.2	16.4	179.2	51.0	30.6
782	1100	-147.1	-175.6	32.7	-168.3	41.3	28.9
803	1150	-170.4	-104.0	98.5	-147.2	27.4	30.1
822	1200	145.4	-73.2	-155.5	-110.7	6.8	34.8
847	1250	105.1	-60.7	-171.6	-86.6	-22.5	51.4
859	1300	84.5	-52.1	179.0	-40.3	-55.1	160.1
883	1400	62.7	-32.6	156.4	-16.4	-105.4	-155.2
928	1500	-103.7	95.5	21.4	79.4	152.0	-93.5
950	1600	-174.3	-170.7	-106.1	163.6	25.3	33.0
951	2000	24.1	-38.7	108.2	-32.9	-117.9	176.3

REC = 23 HEADING = 60. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	3.63E-01	9.36E-01	9.91E-01	3.81E-03	9.08E-04	2.00E-04
.225	.250	3.60E-01	9.60E-01	9.81E-01	9.72E-03	2.36E-03	5.23E-04
.262	.300	3.71E-01	9.95E-01	9.68E-01	2.15E-02	5.14E-03	1.94E-03
.302	.350	3.96E-01	1.08E+00	9.54E-01	4.41E-02	1.05E-02	6.49E-03
.337	.400	4.07E-01	1.17E+00	9.37E-01	8.59E-02	1.79E-02	1.52E-02
.370	.450	4.18E-01	1.20E+00	9.08E-01	1.59E-01	2.86E-02	2.66E-02
.402	.500	4.21E-01	1.19E+00	8.64E-01	2.85E-01	4.22E-02	4.20E-02
.431	.550	4.24E-01	1.14E+00	8.04E-01	4.98E-01	5.82E-02	6.14E-02
.458	.600	4.14E-01	1.07E+00	7.28E-01	8.44E-01	7.57E-02	8.54E-02
.471	.625	4.10E-01	1.03E+00	6.85E-01	1.08E+00	8.45E-02	9.91E-02
.494	.650	4.01E-01	9.93E-01	6.38E-01	1.38E+00	9.30E-02	1.13E-01
.495	.675	3.95E-01	9.46E-01	5.89E-01	1.75E+00	1.02E-01	1.23E-01
.507	.700	3.76E-01	8.96E-01	5.38E-01	2.20E+00	1.08E-01	1.45E-01
.513	.725	3.58E-01	8.45E-01	4.86E-01	2.74E+00	1.18E-01	1.62E-01
.523	.750	3.49E-01	7.92E-01	4.33E-01	3.36E+00	1.28E-01	1.79E-01
.543	.800	2.95E-01	6.86E-01	3.29E-01	4.89E+00	1.26E-01	2.10E-01
.566	.850	2.45E-01	5.81E-01	2.34E-01	6.97E+00	1.24E-01	2.35E-01
.581	.900	1.93E-01	4.78E-01	1.53E-01	8.54E+00	1.18E-01	2.49E-01
.595	.950	1.36E-01	3.76E-01	9.02E-02	9.37E+00	1.03E-01	2.47E-01
.606	1.000	8.83E-02	2.76E-01	4.57E-02	1.43E+01	8.16E-02	2.25E-01
.616	1.050	4.93E-02	1.79E-01	1.86E-02	9.48E+00	6.04E-02	1.86E-01
.624	1.100	2.28E-02	9.42E-02	5.35E-03	7.15E+00	4.06E-02	1.34E-01
.629	1.150	8.91E-03	3.18E-02	1.12E-03	4.25E+00	2.46E-02	7.92E-02
.633	1.200	5.45E-03	3.39E-03	1.41E-03	2.91E+00	1.39E-02	3.30E-02
.635	1.250	8.22E-03	7.96E-03	2.75E-03	1.65E+00	8.14E-03	7.54E-03
.638	1.300	1.23E-02	3.10E-02	3.17E-03	2.89E+00	6.08E-03	3.38E-03
.638	1.400	1.15E-02	5.40E-02	1.82E-03	5.59E+00	5.83E-03	3.29E-02
.638	1.500	1.74E-03	6.70E-03	8.40E-04	2.50E+01	2.49E-03	8.27E-03
.632	1.600	1.16E-03	4.83E-03	3.99E-04	4.15E-01	1.09E-03	2.14E-02
.625	2.000	5.17E-03	2.65E-03	1.08E-04	1.05E-01	4.97E-04	1.16E-02

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
184	200	-77.8	89.8	.1	83.2	94.3	28.9
225	200	-85.4	89.8	.1	80.3	92.2	25.6
266	200	-90.1	89.7	.1	77.3	90.1	19.2
302	200	-93.5	90.1	-0	74.7	88.0	13.0
337	200	-96.2	90.3	-3	71.3	86.1	10.4
372	200	-98.4	90.0	-4	68.2	84.8	10.2
402	200	-100.4	89.4	-6	63.0	83.7	10.8
431	200	-102.2	88.4	-9	59.2	82.4	11.7
459	200	-104.2	87.2	-1.1	56.0	80.9	12.8
471	200	-105.1	86.4	-1.3	53.5	80.0	13.3
484	200	-106.1	85.5	-1.6	51.5	79.1	13.9
495	200	-107.0	84.5	-1.8	52.5	78.1	14.4
507	200	-108.0	83.4	-2.1	51.8	76.9	15.0
519	200	-109.1	82.2	-2.5	51.2	75.7	15.6
529	200	-110.2	80.8	-2.9	50.9	74.4	16.3
539	200	-112.6	77.7	-4.1	50.8	71.3	17.6
546	200	-115.3	74.1	-5.6	51.6	67.7	19.1
556	200	-118.4	70.2	-7.7	52.2	63.4	20.8
561	200	-122.4	66.0	-10.7	53.7	58.2	22.6
566	200	-127.6	61.9	-15.2	58.4	51.9	24.8
566	200	-133.1	57.7	-22.6	64.5	44.1	27.2
574	200	-147.8	52.9	-37.7	71.9	33.9	30.3
581	200	-173.1	44.9	-82.7	84.5	20.1	34.4
585	200	141.4	11.1	-149.6	109.9	.6	41.5
585	200	104.4	-99.5	-176.1	154.2	-26.7	62.3
585	200	85.7	-117.0	168.8	-173.2	-59.4	149.9
585	200	56.0	-132.7	135.1	-152.5	-116.1	-163.6
585	200	-107.7	123.6	6.2	-111.4	136.3	-128.7
585	200	-166.7	-34.4	-137.3	-3.4	3.7	13.5
585	200	33.8	-102.1	73.6	171.4	-140.0	175.2

REC = 24

HEADING = 60. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)*2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	4.067E-01	1.041E+00	9.890E-01	3.794E-03	7.531E-04	6.767E-05
.217	.250	4.202E-01	1.102E+00	9.786E-01	9.644E-03	2.094E-03	2.654E-04
.253	.300	4.488E-01	1.165E+00	9.635E-01	2.114E-02	4.664E-03	1.001E-03
.286	.350	4.824E-01	1.233E+00	9.408E-01	4.198E-02	8.874E-03	3.057E-03
.316	.400	5.186E-01	1.306E+00	9.218E-01	7.923E-02	1.637E-02	1.094E-02
.344	.450	5.543E-01	1.444E+00	8.905E-01	1.428E-01	2.661E-02	2.252E-02
.369	.500	5.871E-01	1.474E+00	8.449E-01	2.474E-01	3.946E-02	3.890E-02
.391	.550	6.144E-01	1.462E+00	7.842E-01	4.127E-01	5.444E-02	6.123E-02
.411	.600	6.299E-01	1.413E+00	7.083E-01	6.612E-01	7.160E-02	9.068E-02
.420	.625	6.378E-01	1.374E+00	6.663E-01	9.231E-01	7.871E-02	1.083E-01
.428	.650	6.393E-01	1.327E+00	6.208E-01	1.012E+00	8.658E-02	1.279E-01
.435	.675	6.368E-01	1.272E+00	5.733E-01	1.229E+00	9.398E-02	1.494E-01
.443	.700	6.301E-01	1.209E+00	5.241E-01	1.472E+00	1.007E-01	1.727E-01
.449	.725	6.188E-01	1.139E+00	4.738E-01	1.737E+00	1.064E-01	1.974E-01
.455	.750	6.027E-01	1.062E+00	4.232E-01	2.018E+00	1.118E-01	2.231E-01
.464	.800	5.552E-01	8.902E-01	3.244E-01	2.589E+00	1.160E-01	2.756E-01
.471	.850	4.892E-01	7.035E-01	2.327E-01	3.078E+00	1.144E-01	3.243E-01
.475	.900	4.046E-01	5.264E-01	1.538E-01	3.360E+00	1.060E-01	3.619E-01
.476	.950	3.105E-01	3.587E-01	9.165E-02	3.321E+00	9.163E-02	3.801E-01
.475	1.000	2.149E-01	2.208E-01	5.716E-02	2.930E+00	7.327E-02	3.719E-01
.471	1.050	1.285E-01	1.285E-01	1.955E-02	2.247E+00	5.351E-02	3.339E-01
.465	1.100	6.531E-02	8.322E-02	5.720E-03	1.443E+00	3.523E-02	2.688E-01
.456	1.150	2.17E-02	8.10E-02	1.258E-03	7.276E-01	2.062E-02	1.88E-01
.444	1.200	1.672E-02	1.036E-01	1.568E-03	2.733E-01	1.086E-02	1.017E-01
.430	1.250	3.455E-02	1.267E-01	2.977E-03	1.311E-01	5.855E-03	3.215E-02
.413	1.300	5.456E-02	1.271E-01	3.502E-03	2.287E-01	3.732E-03	2.756E-03
.371	1.400	9.284E-02	4.371E-02	1.631E-03	5.233E-01	3.254E-03	5.011E-02
.256	1.600	3.430E-02	3.739E-01	9.626E-04	3.817E-02	7.263E-04	8.684E-02
.099	1.800	1.469E+00	1.565E-01	2.971E-04	1.005E-01	1.309E-04	1.927E-01
.099	2.000	2.396E+00	4.585E+00	1.032E-04	4.250E-02	4.279E-05	4.117E-02

PHASE (MOTION-WAVEHT)

NE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
179	200	-77.5	89.7	.1	81.8	91.4	68.6
217	200	-85.2	89.7	.1	78.5	89.5	47.4
253	200	-89.9	89.6	.0	75.0	88.0	32.3
285	200	-93.1	89.6	.0	71.3	87.0	25.0
316	200	-95.8	89.8	-2.2	67.9	84.6	16.8
344	200	-98.0	89.6	-5.5	63.5	83.0	14.9
369	200	-99.9	89.0	-8.6	59.0	81.7	14.5
391	200	-101.7	88.2	-11.1	54.7	80.2	14.6
411	200	-103.5	87.0	-13.6	50.8	78.4	15.0
429	200	-104.4	86.3	-15.9	49.1	77.4	15.3
428	200	-105.3	85.5	-18.2	47.5	76.3	15.6
435	200	-106.3	84.6	-20.6	45.1	75.2	15.8
443	200	-107.2	83.6	-23.1	44.7	73.9	16.1
443	200	-108.2	82.4	-25.6	43.5	72.5	16.4
455	200	-109.2	81.2	-28.3	42.5	71.0	16.7
464	200	-111.4	78.1	-30.8	40.7	67.6	17.4
471	200	-113.9	74.2	-33.8	39.3	63.6	18.0
475	200	-116.8	69.1	-36.4	38.5	59.0	18.8
475	200	-120.4	61.8	-39.0	38.1	53.6	19.5
475	200	-125.1	51.1	-41.2	38.4	47.2	20.4
475	200	-131.9	33.8	-43.4	39.7	39.3	21.5
455	200	-143.9	7.3	-45.7	42.8	29.4	22.7
444	200	-170.0	-22.9	-48.0	50.0	16.2	24.3
444	200	-138.6	-45.7	-55.7	68.5	-2.4	26.7
433	200	101.5	-60.3	-76.8	114.5	-29.4	31.7
413	200	85.4	-70.6	-100.9	155.8	-63.9	59.5
371	200	70.8	-93.3	-124.8	177.7	-122.6	-163.2
255	200	-108.6	100.0	-13.4	179.6	139.0	-169.5
099	200	-114.9	-17.6	-163.1	-24.7	74.2	12.4
093	200	61.0	-111.7	70.7	179.4	-76.1	-74.8

REC = 25 HEADING = 60. DEG SHIP SPEED = 25. KNOTS
PAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
124	200	4.55E-01	1.17E+00	9.87E-01	3.79E-03	6.02E-04	1.00E-04
209	250	4.81E-01	1.20E+00	9.76E-01	9.62E-03	1.85E-03	1.57E-04
241	300	5.45E-01	1.39E+00	9.59E-01	2.09E-02	4.18E-03	4.19E-04
270	350	6.04E-01	1.50E+00	9.34E-01	4.12E-02	8.02E-03	1.22E-03
335	400	6.78E-01	1.66E+00	9.06E-01	7.58E-02	1.44E-02	4.81E-03
377	450	7.57E-01	1.82E+00	8.72E-01	1.33E-01	2.40E-02	1.36E-02
386	500	8.47E-01	1.93E+00	8.25E-01	2.24E-01	3.65E-02	2.76E-02
351	550	9.28E-01	2.01E+00	7.63E-01	3.61E-01	5.01E-02	4.85E-02
364	600	1.01E+00	2.03E+00	6.88E-01	5.57E-01	6.54E-02	7.81E-02
363	625	1.04E+00	2.02E+00	6.45E-01	6.73E-01	7.24E-02	9.68E-02
373	650	1.09E+00	2.00E+00	6.00E-01	8.16E-01	7.98E-02	1.19E-01
376	675	1.14E+00	1.96E+00	5.53E-01	9.66E-01	8.69E-02	1.43E-01
373	700	1.18E+00	1.91E+00	5.03E-01	1.12E+00	9.24E-02	1.70E-01
300	725	1.15E+00	1.84E+00	4.55E-01	1.29E+00	9.78E-02	2.01E-01
301	750	1.10E+00	1.76E+00	4.06E-01	1.46E+00	1.02E-01	2.35E-01
300	800	1.10E+00	1.55E+00	3.09E-01	1.77E+00	1.04E-01	3.10E-01
376	850	1.13E+00	1.29E+00	2.19E-01	2.00E+00	1.02E-01	3.91E-01
363	900	1.05E+00	1.00E+00	1.43E-01	2.07E+00	9.35E-02	4.69E-01
353	950	9.24E-01	7.04E-01	8.28E-02	1.97E+00	7.95E-02	5.35E-01
344	1000	7.25E-01	4.43E-01	4.05E-02	1.68E+00	6.21E-02	5.76E-01
326	1050	5.05E-01	2.69E-01	1.51E-02	1.27E+00	4.41E-02	5.82E-01
306	1100	2.71E-01	2.37E-01	3.42E-03	8.16E-01	2.80E-02	5.52E-01
302	1150	1.03E-01	4.13E-01	6.01E-04	4.17E-01	1.56E-02	4.96E-01
355	1200	7.95E-02	9.60E-01	1.70E-03	1.52E-01	7.88E-03	4.13E-01
325	1250	3.62E-01	2.04E+00	3.28E-03	2.79E-02	3.45E-03	3.10E-01
311	1300	1.20E+00	4.10E+00	3.64E-03	3.69E-02	1.52E-03	2.08E-01
300	1400	1.13E+01	2.12E+01	1.37E-03	2.32E-01	7.07E-04	1.39E-01
300	1500	2.09E+00	2.80E+01	1.44E-03	6.01E-02	3.40E-04	5.60E-01
327	1800	6.34E-03	2.53E-02	3.45E-04	1.52E-01	4.03E-04	4.04E-02
325	2000	1.49E-03	5.86E-03	6.03E-05	1.03E+00	6.46E-04	5.84E-03

PHASE (MOTION-AVERT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
174	200	-77.4	89.6	.1	80.7	86.0	127.4
209	250	-85.1	89.6	.0	77.2	84.7	93.1
241	300	-89.7	89.5	.0	73.2	84.6	65.1
270	350	-92.8	89.4	.1	68.9	84.2	47.9
295	400	-95.3	89.4	.3	64.8	82.6	31.1
317	450	-97.4	89.2	.6	60.4	80.8	23.9
336	500	-99.3	88.7	.9	55.9	79.2	21.4
351	550	-101.0	88.0	1.4	51.4	77.5	20.5
364	600	-102.7	86.9	2.0	47.3	75.5	20.1
369	625	-103.5	86.3	2.4	45.5	74.3	20.1
373	650	-104.3	85.6	2.9	43.7	73.1	20.1
375	675	-105.2	84.8	3.4	42.1	71.8	20.2
378	700	-106.0	84.0	4.0	40.5	70.3	20.2
380	725	-106.9	83.0	4.6	39.2	68.8	20.4
381	750	-107.8	81.9	5.4	37.9	67.2	20.5
389	800	-109.6	79.2	7.2	35.7	65.6	20.9
375	850	-111.7	75.6	9.5	33.7	59.5	21.1
363	900	-113.9	70.5	12.4	32.2	54.8	21.4
344	950	-115.6	62.8	16.2	30.9	49.5	21.5
326	1,000	-120.0	50.0	21.4	30.0	43.7	21.4
306	1,050	-125.8	26.8	29.5	29.5	36.8	20.8
282	1,100	-131.8	-9.5	46.9	29.5	28.6	19.1
255	1,150	-137.4	-43.1	77.1	30.4	18.5	15.7
225	1,200	-136.4	-62.4	114.9	37.1	4.8	12.5
191	1,250	97.8	-73.7	163.5	67.9	-14.4	6.4
114	1,300	86.2	-81.3	150.5	150.0	-41.5	-3.1
80	1,400	79.8	-90.6	116.6	175.0	-87.9	-29.5
27	1,500	-108.0	82.7	-22.0	165.8	-133.9	172.8
55	1,600	-145.5	-63.7	-145.3	-17.9	-13.6	15.3
93	2,000	-21.4	-169.1	110.8	-175.9	-133.1	177.3

REC = 26

HEADING = 75. DEG . SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.197	.200	9.965E-02	9.609E-01	1.000E+00	4.999E-03	3.099E-04	2.374E-04
.246	.250	8.454E-02	9.537E-01	9.985E-01	1.305E-02	7.493E-04	5.315E-04
.294	.300	7.931E-02	1.000E+00	9.983E-01	3.042E-02	1.605E-03	1.334E-03
.342	.350	7.587E-02	1.120E+00	1.008E+00	6.739E-02	3.199E-03	3.242E-03
.393	.400	7.351E-02	1.140E+00	1.016E+00	1.356E-01	5.667E-03	5.330E-03
.445	.450	7.127E-02	1.115E+00	1.019E+00	2.672E-01	9.200E-03	7.779E-03
.493	.500	6.894E-02	1.070E+00	1.012E+00	5.237E-01	1.399E-02	1.081E-02
.543	.550	6.643E-02	1.031E+00	9.921E-01	1.063E+00	2.009E-02	1.460E-02
.576	.600	6.365E-02	1.021E+00	9.561E-01	2.376E+00	2.749E-02	1.930E-02
.593	.625	6.213E-02	1.033E+00	9.312E-01	3.730E+00	3.163E-02	2.197E-02
.621	.650	6.061E-02	1.083E+00	9.017E-01	6.130E+00	3.602E-02	2.461E-02
.644	.675	5.899E-02	1.173E+00	8.748E-01	1.056E+01	4.104E-02	2.670E-02
.667	.700	5.739E-02	1.301E+00	8.616E-01	1.826E+01	4.747E-02	2.534E-02
.683	.725	5.571E-02	1.318E+00	8.466E-01	2.723E+01	5.443E-02	1.650E-02
.712	.750	5.395E-02	1.073E+00	8.296E-01	2.964E+01	6.207E-02	5.776E-03
.757	.800	5.035E-02	5.675E-01	7.891E-01	1.567E+01	7.891E-02	9.609E-03
.801	.850	4.644E-02	3.943E-01	7.394E-01	8.429E+00	9.786E-02	2.143E-02
.845	.900	4.232E-02	3.105E-01	6.801E-01	5.313E+00	1.175E-01	3.053E-02
.889	.950	3.801E-02	2.483E-01	6.115E-01	3.723E+00	1.376E-01	3.703E-02
.932	1.000	3.359E-02	1.937E-01	5.351E-01	2.770E+00	1.566E-01	4.127E-02
.975	1.050	2.910E-02	1.451E-01	4.531E-01	2.122E+00	1.731E-01	4.337E-02
1.013	1.100	2.455E-02	1.025E-01	3.707E-01	1.535E+00	1.875E-01	4.332E-02
1.050	1.150	2.008E-02	6.750E-02	2.899E-01	1.247E+00	1.989E-01	4.125E-02
1.102	1.200	1.591E-02	4.072E-02	2.127E-01	9.318E-01	2.088E-01	3.740E-02
1.144	1.250	1.211E-02	2.158E-02	1.424E-01	6.709E-01	2.066E-01	3.211E-02
1.185	1.300	8.785E-03	9.257E-03	8.372E-02	4.586E-01	1.879E-01	2.590E-02
1.267	1.400	3.799E-03	6.594E-04	1.343E-02	1.550E-01	1.367E-01	1.310E-02
1.426	1.600	2.500E-04	7.500E-03	8.226E-03	1.139E-03	2.875E-02	1.205E-04
1.530	1.800	2.336E-04	2.864E-03	4.738E-03	2.996E-02	1.238E-02	1.929E-03
1.723	2.000	5.171E-05	1.606E-04	9.991E-04	5.435E-03	5.703E-03	6.188E-04

PHASE (NOTION-WAVER)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.197	.200	-67.3	90.0	.0	88.1	105.3	7.9
.246	.250	-79.4	90.0	.0	87.0	99.3	9.2
.294	.300	-86.9	90.4	.0	86.4	95.5	4.2
.342	.350	-92.3	91.1	.3	85.9	92.2	-1.9
.389	.400	-96.1	91.1	.4	84.4	90.7	-1.4
.436	.450	-98.9	90.8	.5	82.7	89.9	2.9
.483	.500	-101.3	90.4	.4	81.4	89.4	7.0
.529	.550	-103.4	89.8	.3	81.0	88.9	11.6
.575	.600	-105.3	89.4	.1	82.9	88.4	17.4
.593	.625	-106.3	89.5	.0	85.3	88.1	21.4
.621	.650	-107.2	90.1	.1	89.7	87.8	26.8
.644	.675	-108.2	92.2	.1	97.5	87.4	34.2
.667	.700	-109.2	97.2	.2	110.9	87.1	44.4
.689	.725	-110.2	105.9	.3	131.2	86.7	55.8
.712	.750	-111.3	114.9	.5	154.6	85.4	55.8
.757	.800	-113.3	117.8	.7	175.1	85.7	-4.8
.801	.850	-115.3	112.9	1.1	-164.0	85.1	-5.7
.845	.900	-117.4	109.0	1.5	-159.9	84.4	-3.0
.889	.950	-119.5	106.5	1.9	-158.6	83.6	-.8
.932	1.000	-121.7	104.8	2.4	-158.4	82.8	1.0
.975	1.050	-124.0	103.5	3.0	-158.8	81.9	2.5
1.018	1.100	-126.4	102.6	4.2	-159.0	81.3	4.4
1.060	1.150	-128.7	101.6	6.2	-159.2	81.0	6.2
1.102	1.200	-131.1	100.1	8.7	-159.5	80.7	7.7
1.144	1.250	-133.7	97.5	11.8	-159.9	80.5	9.9
1.185	1.300	-136.6	92.2	15.6	-160.2	80.2	10.0
1.227	1.400	-144.6	26.1	25.6	-160.1	78.6	12.2
1.269	1.500	-157.5	-56.7	-148.5	-32.2	53.0	23.6
1.311	1.600	68.1	-56.0	-164.6	3.3	-16.7	-162.4
1.353	1.700	32.1	96.1	112.3	-11.4	-68.0	-154.2

REC = 27 HEADING = 75. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	1.051E-01	9.364E-01	9.981E-01	4.918E-03	2.402E-04	1.792E-04
.242	.250	9.027E-02	9.967E-01	9.950E-01	1.277E-02	6.315E-04	4.071E-04
.283	.300	8.540E-02	1.024E+00	9.919E-01	2.902E-02	1.402E-03	1.073E-03
.333	.350	8.327E-02	1.164E+00	1.001E+00	6.294E-02	3.007E-03	3.481E-03
.373	.400	8.183E-02	1.204E+00	1.007E+00	1.253E-01	5.503E-03	5.915E-03
.422	.450	8.046E-02	1.192E+00	1.008E+00	2.339E-01	9.039E-03	8.561E-03
.466	.500	7.890E-02	1.158E+00	9.993E-01	4.503E-01	1.372E-02	1.174E-02
.509	.550	7.704E-02	1.119E+00	9.793E-01	8.611E-01	1.957E-02	1.539E-02
.551	.600	7.480E-02	1.094E+00	9.450E-01	1.714E+00	2.653E-02	2.058E-02
.572	.625	7.353E-02	1.093E+00	9.219E-01	2.475E+00	3.038E-02	2.336E-02
.593	.650	7.213E-02	1.104E+00	8.949E-01	3.647E+00	3.443E-02	2.627E-02
.613	.675	7.062E-02	1.131E+00	8.639E-01	5.477E+00	3.865E-02	2.906E-02
.633	.700	6.899E-02	1.177E+00	8.291E-01	8.331E+00	4.299E-02	3.110E-02
.654	.725	6.735E-02	1.249E+00	8.080E-01	1.257E+01	4.892E-02	3.206E-02
.674	.750	6.563E-02	1.291E+00	7.883E-01	1.771E+01	5.563E-02	3.288E-02
.713	.800	6.186E-02	1.056E+00	7.448E-01	2.173E+01	7.023E-02	1.506E-02
.752	.850	5.769E-02	6.890E-01	5.934E-01	1.548E+01	8.617E-02	1.611E-02
.790	.900	5.310E-02	4.801E-01	6.345E-01	1.011E+01	1.029E-01	2.594E-02
.827	.950	4.817E-02	3.579E-01	5.696E-01	6.996E+00	1.195E-01	3.548E-02
.864	1.000	4.297E-02	2.704E-01	4.996E-01	5.131E+00	1.352E-01	4.281E-02
.900	1.050	3.761E-02	2.000E-01	4.257E-01	3.896E+00	1.487E-01	4.762E-02
.936	1.100	3.222E-02	1.417E-01	3.534E-01	3.004E+00	1.591E-01	4.979E-02
.970	1.150	2.692E-02	9.334E-02	2.822E-01	2.311E+00	1.652E-01	4.935E-02
1.004	1.200	2.182E-02	5.676E-02	2.162E-01	1.747E+00	1.668E-01	4.634E-02
1.038	1.250	1.697E-02	2.984E-02	1.572E-01	1.272E+00	1.641E-01	4.095E-02
1.070	1.300	1.270E-02	1.251E-02	1.070E-01	8.838E-01	1.558E-01	3.405E-02
1.134	1.400	6.153E-03	2.269E-04	3.632E-02	3.377E-01	1.243E-01	1.893E-02
1.252	1.500	7.915E-04	1.176E-02	1.324E-03	2.734E-03	4.082E-02	3.255E-04
1.360	1.600	6.103E-04	6.115E-03	3.938E-03	6.374E-02	1.616E-02	3.489E-03
1.456	2.000	2.187E-04	3.339E-04	3.382E-04	1.193E-02	1.679E-02	1.513E-03

PHASE (MOTION-WAVEHT)

WE	1.195	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.200	-67.2	-195.2	89.9	.1	87.7	102.9	14.1
.242	-79.3	-179.3	89.9	.1	86.7	97.2	15.0
.300	-86.7	-86.7	90.1	.1	86.0	93.7	11.2
.333	-92.1	-92.1	90.9	-.2	86.3	89.6	2.6
.400	-95.9	-95.9	90.9	-.3	85.0	88.3	2.5
.422	-99.8	-99.8	90.7	-.4	83.3	87.8	4.7
.450	-101.2	-101.2	90.3	-.4	81.0	87.5	7.8
.500	-103.3	-103.3	89.7	-.3	81.2	87.2	11.3
.550	-105.2	-105.2	89.2	-.2	82.2	86.7	15.5
.591	-106.2	-106.2	89.1	-.2	83.6	86.4	18.1
.572	-107.1	-107.1	89.1	-.2	86.2	86.0	21.1
.593	-108.0	-108.0	89.6	-.2	90.2	85.6	25.0
.613	-109.0	-109.0	90.9	-.2	96.4	85.1	29.9
.633	-110.0	-110.0	93.8	-.2	105.7	84.6	35.4
.674	-111.1	-111.1	98.6	-.2	118.5	84.1	41.0
.713	-113.2	-113.2	103.9	-.2	149.3	83.2	37.3
.752	-115.4	-115.4	114.1	-.1	171.5	82.1	13.1
.790	-117.6	-117.6	112.8	-.1	-177.4	80.9	5.1
.827	-119.9	-119.9	110.8	-.1	-172.1	79.5	4.0
.854	-122.4	-122.4	109.0	-.1	-169.6	78.0	4.5
.900	-125.1	-125.1	107.6	-.1	-168.4	76.2	5.4
.936	-128.0	-128.0	106.5	-.2	-167.9	74.2	6.3
.970	-131.2	-131.2	105.7	-.2	-167.7	72.0	7.3
1.004	-134.7	-134.7	105.0	-.0	-167.5	69.7	8.5
1.033	-138.5	-138.5	103.8	1.0	-167.2	67.3	10.0
1.073	-142.8	-142.8	101.4	2.4	-166.8	64.7	11.3
1.134	-154.0	-154.0	40.9	7.8	-165.4	58.0	13.9
1.252	152.8	152.8	-63.0	133.3	-70.2	31.1	36.8
1.363	69.0	69.0	-57.8	178.1	-3.9	-46.5	-166.4
1.456	31.4	31.4	73.3	-6.2	-8.4	-96.9	-148.8

REC = 28

HEADING = 75. DEG
RAO (NOTION/WAVEHT)**2

SHIP SPEED = 15. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	1.109E-01	1.040E+00	9.958E-01	4.870E-03	1.763E-04	9.848E-05
.237	.250	9.650E-02	1.050E+00	9.915E-01	1.256E-02	5.128E-04	2.381E-04
.282	.300	9.257E-02	1.059E+00	9.854E-01	2.801E-02	1.175E-03	5.856E-04
.325	.350	9.161E-02	1.214E+00	9.938E-01	5.921E-02	2.789E-03	3.180E-03
.367	.400	9.138E-02	1.275E+00	9.988E-01	1.156E-01	5.317E-03	5.899E-03
.409	.450	9.123E-02	1.282E+00	9.978E-01	2.151E-01	8.866E-03	8.708E-03
.443	.500	9.077E-02	1.260E+00	9.989E-01	3.912E-01	1.350E-02	1.198E-02
.488	.550	8.996E-02	1.228E+00	9.975E-01	7.373E-01	1.920E-02	1.602E-02
.527	.600	8.864E-02	1.198E+00	9.934E-01	1.289E+00	2.590E-02	2.102E-02
.545	.625	8.777E-02	1.187E+00	9.932E-01	1.747E+00	2.957E-02	2.388E-02
.564	.650	8.675E-02	1.181E+00	9.882E-01	2.378E+00	3.341E-02	2.692E-02
.582	.675	8.556E-02	1.180E+00	8.599E-01	3.245E+00	3.745E-02	3.005E-02
.601	.700	8.423E-02	1.186E+00	8.283E-01	4.423E+00	4.158E-02	3.307E-02
.618	.725	8.267E-02	1.196E+00	7.938E-01	5.980E+00	4.580E-02	3.563E-02
.635	.750	8.096E-02	1.206E+00	7.565E-01	7.933E+00	5.007E-02	3.725E-02
.670	.800	7.734E-02	1.209E+00	7.083E-01	1.241E+01	6.280E-02	3.851E-02
.703	.850	7.307E-02	1.069E+00	6.557E-01	1.478E+01	7.670E-02	3.448E-02
.735	.900	6.813E-02	8.398E-01	5.976E-01	1.371E+01	9.107E-02	3.365E-02
.766	.950	6.259E-02	6.299E-01	5.351E-01	1.127E+01	1.052E-01	3.833E-02
.796	1.000	5.652E-02	4.669E-01	4.697E-01	8.973E+00	1.183E-01	4.521E-02
.825	1.050	5.006E-02	3.405E-01	4.031E-01	7.126E+00	1.294E-01	5.157E-02
.853	1.100	4.339E-02	2.466E-01	3.373E-01	5.662E+00	1.376E-01	5.594E-02
.881	1.150	3.667E-02	1.611E-01	2.741E-01	4.466E+00	1.426E-01	5.765E-02
.907	1.200	3.016E-02	9.977E-02	2.157E-01	3.468E+00	1.432E-01	5.630E-02
.932	1.250	2.402E-02	5.457E-02	1.631E-01	2.617E+00	1.394E-01	5.212E-02
.956	1.300	1.843E-02	2.433E-02	1.177E-01	1.896E+00	1.313E-01	4.552E-02
1.001	1.400	9.627E-03	4.767E-04	5.027E-02	8.115E-01	1.035E-01	2.777E-02
1.078	1.600	1.735E-03	1.849E-02	7.758E-04	1.136E-02	3.459E-02	1.203E-03
1.140	1.800	1.316E-03	1.219E-02	6.054E-03	1.405E-03	1.179E-02	4.901E-03
1.185	2.000	6.326E-04	5.095E-04	5.056E-03	4.126E-02	1.920E-02	3.770E-03

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	-67.1	89.8	.1	87.3	99.1	24.1
.237	.250	-79.1	89.8	.1	86.3	94.2	24.5
.282	.300	-86.5	87.9	.1	85.3	91.7	21.9
.325	.350	-91.9	90.7	.1	86.4	86.7	7.1
.367	.400	-95.7	90.8	.3	85.6	85.5	5.7
.409	.450	-98.6	90.6	.3	84.2	85.3	6.9
.449	.500	-101.0	90.2	.3	82.9	85.3	9.1
.488	.550	-103.1	89.7	.3	82.4	85.1	11.8
.527	.600	-105.1	89.3	.4	83.1	84.7	14.9
.545	.625	-106.0	89.1	.4	84.1	84.4	16.6
.564	.650	-107.0	89.0	.4	85.3	84.5	18.5
.582	.675	-107.9	89.0	.5	88.3	83.5	20.6
.600	.700	-108.9	89.3	.5	91.7	82.9	23.1
.618	.725	-109.8	90.1	.8	96.4	82.2	25.8
.635	.750	-110.8	91.4	.0	102.4	81.4	28.7
.670	.800	-113.0	96.4	.2	113.3	89.2	32.8
.703	.850	-115.3	102.5	.4	136.3	73.8	31.6
.735	.900	-117.5	106.7	.7	151.4	77.1	24.8
.766	.950	-120.1	108.7	.1	161.8	75.3	18.3
.795	1.000	-122.7	109.2	.6	168.3	73.2	14.7
.825	1.050	-125.6	109.1	.3	172.5	70.9	13.1
.853	1.100	-128.8	109.9	.0	175.1	69.3	12.5
.881	1.150	-132.3	108.8	.8	176.9	65.3	12.5
.907	1.200	-136.3	108.9	.6	178.1	62.1	12.8
.932	1.250	-140.9	109.4	.5	179.1	58.4	13.5
.956	1.300	-146.1	110.7	.4	-180.0	54.3	14.4
1.001	1.400	-159.9	137.3	.3	-177.9	44.6	17.3
1.078	1.500	143.3	-72.1	.4	-116.9	11.9	4.0
1.140	1.600	62.8	-64.0	.1	-16.3	-76.3	-169.6
1.185	2.000	11.7	44.3	.9	-13.1	-141.8	-150.0

REC = 29

HEADING = 75. DEG . SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	1.170E-01	1.094E+00	9.939E-01	4.843E-03	1.186E-04	4.175E-05
.233	.250	1.133E-01	1.115E+00	9.886E-01	1.243E-02	3.995E-04	1.075E-04
.276	.300	1.066E-01	1.137E+00	9.818E-01	2.754E-02	9.922E-04	3.126E-04
.317	.350	1.110E-01	1.277E+00	9.874E-01	5.646E-02	2.557E-03	2.436E-03
.357	.400	1.024E-01	1.365E+00	9.916E-01	1.083E-01	5.137E-03	5.264E-03
.395	.450	1.038E-01	1.385E+00	9.895E-01	1.974E-01	8.733E-03	8.184E-03
.432	.500	1.051E-01	1.386E+00	9.790E-01	3.510E-01	1.337E-02	1.155E-02
.463	.550	1.058E-01	1.365E+00	9.584E-01	6.131E-01	1.903E-02	1.576E-02
.502	.600	1.060E-01	1.340E+00	9.264E-01	1.064E+00	2.564E-02	2.112E-02
.519	.625	1.058E-01	1.328E+00	9.061E-01	1.400E+00	2.923E-02	2.431E-02
.535	.650	1.055E-01	1.318E+00	8.828E-01	1.842E+00	3.305E-02	2.785E-02
.551	.675	1.049E-01	1.310E+00	8.566E-01	2.423E+00	3.701E-02	3.174E-02
.567	.700	1.041E-01	1.305E+00	8.278E-01	3.181E+00	4.110E-02	3.594E-02
.582	.725	1.031E-01	1.307E+00	7.964E-01	4.163E+00	4.530E-02	4.035E-02
.597	.750	1.019E-01	1.311E+00	7.628E-01	5.418E+00	4.957E-02	4.483E-02
.626	.800	9.864E-02	1.326E+00	6.899E-01	8.854E+00	5.821E-02	5.292E-02
.654	.850	9.458E-02	1.335E+00	6.266E-01	1.329E+01	6.921E-02	5.967E-02
.680	.900	8.953E-02	1.275E+00	5.638E-01	1.725E+01	8.196E-02	6.170E-02
.705	.950	8.367E-02	1.105E+00	5.080E-01	1.893E+01	9.436E-02	6.009E-02
.728	1.000	7.678E-02	8.919E-01	4.456E-01	1.821E+01	1.057E-01	5.947E-02
.750	1.050	6.938E-02	6.783E-01	3.829E-01	1.619E+01	1.152E-01	6.131E-02
.771	1.100	6.330E-02	4.935E-01	3.219E-01	1.379E+01	1.221E-01	6.427E-02
.791	1.150	5.216E-02	3.417E-01	2.636E-01	1.142E+01	1.257E-01	6.651E-02
.809	1.200	4.322E-02	2.225E-01	2.093E-01	9.232E+00	1.255E-01	6.664E-02
.825	1.250	3.514E-02	1.314E-01	1.615E-01	7.244E+00	1.215E-01	6.389E-02
.841	1.300	2.739E-02	6.731E-02	1.194E-01	5.471E+00	1.136E-01	5.808E-02
.867	1.400	1.475E-02	6.237E-03	5.511E-02	2.608E+00	8.784E-02	3.925E-02
.904	1.600	3.473E-03	3.151E-02	1.583E-03	7.447E-02	2.695E-02	3.366E-03
.920	1.800	2.744E-03	3.375E-02	6.336E-03	5.448E-01	6.625E-03	7.463E-03
.913	2.000	1.199E-03	2.212E-03	6.424E-03	3.450E-01	1.231E-02	1.051E-02

PHASE (NOTION-WAVEHT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	-67.0	89.7	.1	85.6	91.2	44.1
.233	.250	-79.0	89.8	.1	85.4	38.9	43.7
.276	.300	-86.4	89.8	.1	84.2	87.3	34.6
.317	.350	-91.7	90.4	.1	85.2	83.1	12.5
.357	.400	-95.5	90.5	.2	84.4	82.3	9.2
.395	.450	-98.4	90.4	.3	82.8	82.5	9.6
.432	.500	-101.8	90.0	.3	81.2	82.7	11.0
.468	.550	-102.9	89.5	.4	79.9	82.7	13.0
.502	.600	-104.9	88.9	.5	79.5	82.3	15.3
.539	.625	-105.8	88.6	.6	79.7	82.0	16.5
.573	.650	-106.8	88.3	.7	80.2	81.5	17.8
.604	.675	-107.7	88.0	.8	81.2	81.0	19.1
.637	.700	-108.7	87.8	1.0	82.7	80.3	20.6
.668	.725	-109.7	87.7	1.2	84.7	79.6	22.2
.697	.750	-110.7	87.8	1.4	87.4	78.8	24.0
.725	.800	-112.7	88.9	2.1	95.1	75.8	28.0
.754	.850	-115.0	91.8	2.7	105.8	74.9	31.7
.783	.900	-117.4	96.1	3.4	118.3	73.0	33.8
.805	.950	-119.9	100.6	4.1	130.6	70.9	33.1
.829	1.000	-122.7	104.3	5.1	140.9	68.5	30.1
.851	1.050	-125.7	106.9	6.2	146.6	65.7	26.7
.871	1.100	-128.0	108.8	7.5	154.3	62.7	23.9
.891	1.150	-132.7	110.3	9.0	158.3	59.3	22.1
.909	1.200	-136.9	111.7	10.7	161.3	55.6	21.0
.925	1.250	-141.8	113.5	12.6	163.6	51.5	20.6
.941	1.300	-147.4	116.2	14.6	165.5	46.9	20.6
.957	1.400	-162.4	137.2	19.1	169.1	35.2	22.2
.974	1.500	137.7	-79.7	25.0	-149.3	2.0	43.1
.990	1.600	62.3	-67.2	137.4	-31.9	-95.7	-173.0
.993	2.000	3.4	-3.3	131.2	-25.4	-167.7	-151.9

REC = 30

HEADING = 75. DEG
RAO (MOTION/WAVEHT)**2

SHIP SPEED = 25. KNOTS

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.186	.200	1.237E-01	1.156E+00	9.930E-01	4.831E-03	8.044E-05	2.202E-05
.229	.250	1.107E-01	1.194E+00	9.867E-01	1.235E-02	3.095E-04	5.776E-05
.269	.300	1.095E-01	1.237E+00	9.801E-01	2.724E-02	8.650E-04	1.590E-04
.308	.350	1.117E-01	1.362E+00	9.822E-01	5.455E-02	2.342E-03	1.495E-03
.346	.400	1.152E-01	1.468E+00	9.861E-01	1.029E-01	5.009E-03	4.116E-03
.381	.450	1.188E-01	1.523E+00	9.832E-01	1.546E-01	8.703E-03	6.952E-03
.415	.500	1.223E-01	1.544E+00	9.721E-01	3.208E-01	1.343E-02	1.024E-02
.447	.550	1.259E-01	1.544E+00	9.514E-01	5.450E-01	1.917E-02	1.438E-02
.478	.600	1.280E-01	1.531E+00	9.206E-01	9.110E-01	2.586E-02	1.981E-02
.492	.625	1.291E-01	1.522E+00	9.013E-01	1.172E+00	2.953E-02	2.312E-02
.505	.650	1.299E-01	1.513E+00	9.795E-01	1.503E+00	3.338E-02	2.689E-02
.520	.675	1.304E-01	1.503E+00	8.553E-01	1.921E+00	3.744E-02	3.115E-02
.534	.700	1.308E-01	1.495E+00	8.280E-01	2.446E+00	4.165E-02	3.594E-02
.546	.725	1.308E-01	1.487E+00	8.001E-01	3.101E+00	4.600E-02	4.125E-02
.559	.750	1.305E-01	1.481E+00	7.694E-01	3.913E+00	5.048E-02	4.708E-02
.583	.800	1.295E-01	1.473E+00	7.032E-01	6.112E+00	5.960E-02	6.017E-02
.605	.850	1.281E-01	1.471E+00	6.323E-01	9.206E+00	6.877E-02	7.447E-02
.625	.900	1.215E-01	1.462E+00	5.586E-01	1.319E+01	7.766E-02	8.867E-02
.643	.950	1.155E-01	1.435E+00	4.992E-01	1.774E+01	8.697E-02	1.022E-01
.660	1.000	1.083E-01	1.372E+00	4.285E-01	2.219E+01	9.726E-02	1.140E-01
.675	1.050	9.950E-02	1.249E+00	3.680E-01	2.555E+01	1.059E-01	1.208E-01
.683	1.100	8.942E-02	1.076E+00	3.095E-01	2.723E+01	1.115E-01	1.232E-01
.701	1.150	7.833E-02	8.739E-01	2.540E-01	2.719E+01	1.147E-01	1.222E-01
.711	1.200	6.572E-02	6.677E-01	2.029E-01	2.555E+01	1.144E-01	1.183E-01
.719	1.250	5.493E-02	4.749E-01	1.567E-01	2.300E+01	1.098E-01	1.117E-01
.725	1.300	4.373E-02	3.092E-01	1.165E-01	1.963E+01	1.019E-01	1.021E-01
.734	1.400	2.458E-02	8.279E-02	5.461E-02	1.191E+01	7.694E-02	7.417E-02
.730	1.600	7.526E-03	3.259E-02	1.845E-03	7.142E-01	2.052E-02	1.085E-02
.699	1.800	7.603E-03	1.491E-01	5.371E-03	4.141E+00	3.675E-03	1.481E-02
.641	2.000	2.766E-03	2.851E-02	5.365E-03	4.280E+00	8.249E-03	5.217E-02

PHASE (MOTION-WAVEHT)

WE	ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.186	.200	-65.9	89.7	.0	86.0	73.4	84.6	
.229	.250	-78.9	89.7	.0	84.6	79.1	84.4	
.269	.300	-85.3	89.7	.0	83.3	79.8	58.7	
.308	.350	-91.5	90.1	-1	83.6	78.5	20.4	
.346	.400	-95.3	90.3	-2	82.8	78.6	14.0	
.381	.450	-98.2	90.2	-2	81.0	79.3	13.1	
.415	.500	-100.6	89.8	-3	79.0	79.8	13.8	
.447	.550	-102.7	89.3	-4	77.2	79.9	13.1	
.478	.600	-104.7	88.7	-6	75.8	79.6	16.7	
.492	.625	-105.6	88.3	-7	75.4	79.2	17.5	
.505	.650	-106.6	87.9	-9	75.2	78.7	18.3	
.520	.675	-107.5	87.5	-11	75.1	78.2	19.2	
.534	.700	-108.5	87.1	-13	75.4	77.5	20.1	
.546	.725	-109.4	86.7	-15	75.9	76.7	21.0	
.559	.750	-110.4	86.3	-19	76.7	75.8	22.0	
.583	.800	-112.5	85.7	-26	79.3	73.8	24.0	
.605	.850	-114.6	85.4	-36	83.1	71.5	26.3	
.625	.900	-117.0	85.8	-47	88.3	68.8	28.8	
.643	.950	-119.5	87.0	-60	94.5	66.1	31.1	
.660	1.000	-122.3	89.0	-73	101.3	63.5	33.1	
.675	1.050	-125.3	91.3	-89	107.9	60.5	34.5	
.689	1.100	-128.7	93.7	-107	113.9	57.3	35.2	
.701	1.150	-132.5	96.0	-127	119.1	53.7	35.3	
.711	1.200	-136.8	98.1	-150	123.2	49.7	35.2	
.719	1.250	-141.8	100.0	-176	126.4	45.4	34.9	
.726	1.300	-147.7	101.8	-205	128.9	40.7	34.8	
.734	1.400	-163.6	106.3	-272	132.0	29.8	35.2	
.730	1.600	133.0	107.7	-455	151.9	-3.5	44.1	
.699	1.800	65.4	-91.2	122.2	-92.0	-112.2	-158.8	
.641	2.000	6.9	-134.8	102.8	-121.4	176.0	-157.9	

REC = 31 HEADING = 90. DEG SHIP SPEED = 5. KNOTS RAO (MOTION/WAVEHT)**2

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	1.937E-02	9.966E-01	1.002E+00	5.428E-03	2.389E-05	2.538E-06
.250	.250	6.492E-03	9.839E-01	1.002E+00	1.428E-02	2.371E-05	3.581E-06
.300	.300	2.794E-03	1.052E+00	1.007E+00	3.392E-02	1.768E-05	1.618E-05
.350	.350	1.598E-03	1.160E+00	1.023E+00	7.545E-02	8.386E-06	9.801E-05
.400	.400	1.198E-03	1.169E+00	1.039E+00	1.535E-01	6.333E-06	7.307E-05
.450	.450	1.035E-03	1.136E+00	1.053E+00	3.002E-01	6.465E-06	1.227E-05
.500	.500	9.429E-04	1.092E+00	1.063E+00	6.019E-01	6.572E-06	3.046E-05
.550	.550	8.734E-04	1.059E+00	1.057E+00	1.275E+00	4.984E-06	3.093E-04
.600	.600	8.033E-04	1.065E+00	1.040E+00	3.086E+00	6.433E-06	1.414E-03
.625	.625	7.709E-04	1.093E+00	1.025E+00	5.240E+00	1.016E-05	2.884E-03
.650	.650	7.433E-04	1.148E+00	1.021E+00	9.348E+00	1.155E-05	5.542E-03
.675	.675	7.224E-04	1.151E+00	1.030E+00	1.656E+01	9.592E-06	1.016E-02
.700	.700	7.024E-04	9.110E-01	1.040E+00	2.135E+01	8.758E-06	1.463E-02
.725	.725	6.825E-04	5.817E-01	1.051E+00	1.732E+01	9.451E-06	1.330E-02
.750	.750	6.635E-04	4.381E-01	1.062E+00	1.078E+01	1.213E-05	9.681E-03
.800	.800	6.242E-04	3.976E-01	1.084E+00	4.610E+00	2.653E-05	5.490E-03
.850	.850	5.852E-04	3.943E-01	1.106E+00	2.471E+00	6.135E-05	3.819E-03
.900	.900	5.483E-04	3.807E-01	1.126E+00	1.537E+00	1.335E-04	2.997E-03
.950	.950	5.144E-04	3.581E-01	1.142E+00	1.077E+00	2.685E-04	2.513E-03
1.000	1.000	4.875E-04	3.303E-01	1.155E+00	7.355E-01	5.005E-04	2.179E-03
1.050	1.050	4.857E-04	3.017E-01	1.187E+00	5.711E-01	3.943E-04	1.914E-03
1.100	1.100	4.865E-04	2.748E-01	1.219E+00	4.465E-01	1.577E-03	1.810E-03
1.150	1.150	4.865E-04	2.495E-01	1.241E+00	3.538E-01	2.708E-03	1.803E-03
1.200	1.200	4.812E-04	2.258E-01	1.239E+00	2.81E-01	4.389E-03	1.853E-03
1.250	1.250	4.615E-04	2.039E-01	1.197E+00	2.367E-01	6.625E-03	1.937E-03
1.300	1.300	4.420E-04	1.835E-01	1.104E+00	1.984E-01	9.008E-03	2.039E-03
1.400	1.400	2.809E-04	1.430E-01	7.699E-01	1.432E-01	1.228E-02	2.070E-03
1.600	1.600	6.884E-05	9.011E-02	2.339E-01	8.176E-02	8.468E-03	2.007E-03
1.800	1.800	4.244E-05	4.205E-02	7.302E-02	4.942E-02	3.919E-03	1.868E-03
2.000	2.000	3.894E-05	2.033E-02	2.819E-02	2.955E-02	1.918E-03	1.570E-03

PHASE (MOTION-AVEHT)

WE	H	SURGE	SKAY	HEAVE	ROLL	PITCH	YAW
200	200	-20.1	89.9	0.0	90.7	-159.8	28.2
250	250	-32.8	90.0	0.0	91.0	-155.9	76.2
300	300	-49.6	90.6	-1.1	92.5	-155.7	-20.8
350	350	-69.0	91.1	-1.3	94.3	-170.7	-44.3
400	400	-85.3	91.1	-1.4	95.3	170.7	-47.8
450	450	-97.2	91.0	-1.4	95.4	163.0	-33.8
500	500	-105.6	90.9	-1.3	98.3	169.8	97.7
550	550	-111.5	91.2	-1.1	101.7	-165.6	110.2
600	600	-115.9	92.6	-1.1	108.7	-121.7	117.3
625	625	-117.8	94.4	-1.2	115.3	-101.3	123.4
650	650	-120.3	98.4	-1.3	126.6	-89.0	134.8
675	675	-123.5	105.9	-1.4	145.8	-78.7	155.8
700	700	-125.9	115.0	-1.5	173.6	-65.3	-174.0
725	725	-128.2	116.2	-1.7	-159.6	-50.3	-144.9
750	750	-131.2	109.6	-1.9	-142.0	-36.3	-125.2
800	800	-133.7	99.0	-1.3	-125.7	-15.6	-105.3
850	850	-135.6	94.3	-1.8	-119.5	-5.7	-90.4
900	900	-139.1	91.6	-2.4	-117.2	1.1	-91.5
950	950	-141.2	89.5	-3.1	-116.7	6.6	-88.4
1.000	1.000	-143.3	87.8	-4.0	-117.3	12.3	-85.5
1.050	1.050	-146.4	87.0	-6.1	-118.6	21.0	-78.9
1.100	1.100	-149.4	86.0	-8.8	-120.5	30.0	-73.3
1.150	1.150	-149.3	84.7	-12.3	-122.9	39.8	-68.9
1.200	1.200	-149.9	83.1	-16.6	-125.9	50.6	-65.7
1.250	1.250	-147.0	81.0	-21.5	-129.3	62.7	-63.7
1.300	1.300	-144.0	78.6	-26.8	-133.3	75.3	-62.5
1.400	1.400	-138.0	73.9	-37.4	-141.3	102.6	-59.4
1.600	1.600	-147.7	62.7	-45.9	-158.0	143.3	-54.0
1.800	1.800	-179.6	47.0	-55.9	-176.9	153.6	-55.3
2.000	2.000	-159.5	26.8	-20.6	-162.9	149.8	-50.5

REC = 32

HEADING = 90. DEG . SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	1.934E-02	9.942E-01	1.002E+00	5.421E-03	2.228E-05	6.927E-06
.250	.250	6.468E-03	9.831E-01	9.997E-01	1.428E-02	2.310E-05	3.998E-06
.300	.300	2.776E-03	1.048E+00	1.004E+00	3.370E-02	1.322E-05	4.689E-05
.350	.350	1.590E-03	1.152E+00	1.021E+00	7.457E-02	6.899E-07	2.044E-04
.400	.400	1.199E-03	1.153E+00	1.038E+00	1.517E-01	2.252E-06	1.533E-04
.450	.450	1.042E-03	1.132E+00	1.051E+00	2.984E-01	5.123E-06	4.484E-05
.500	.500	9.514E-04	1.089E+00	1.057E+00	5.920E-01	3.996E-06	3.071E-05
.550	.550	8.779E-04	1.056E+00	1.053E+00	1.238E+00	1.598E-06	2.935E-04
.600	.600	8.077E-04	1.051E+00	1.036E+00	2.879E+00	1.071E-05	1.343E-03
.625	.625	7.734E-04	1.061E+00	1.021E+00	4.517E+00	2.637E-05	2.627E-03
.650	.650	7.464E-04	1.074E+00	1.012E+00	7.422E+00	3.590E-05	4.564E-03
.675	.675	7.270E-04	1.026E+00	1.026E+00	1.093E+01	3.341E-05	7.227E-03
.700	.700	7.084E-04	8.445E-01	1.035E+00	1.264E+01	3.315E-05	8.967E-03
.725	.725	6.898E-04	6.336E-01	1.045E+00	1.077E+01	3.536E-05	8.486E-03
.750	.750	6.710E-04	5.109E-01	1.057E+00	7.756E+00	4.020E-05	6.974E-03
.800	.800	6.323E-04	4.361E-01	1.078E+00	3.892E+00	6.045E-05	4.603E-03
.850	.850	5.931E-04	4.131E-01	1.103E+00	2.239E+00	1.013E-04	3.420E-03
.900	.900	5.548E-04	3.905E-01	1.113E+00	1.441E+00	1.771E-04	2.780E-03
.950	.950	5.189E-04	3.634E-01	1.132E+00	1.003E+00	3.119E-04	2.384E-03
1.000	1.000	4.897E-04	3.330E-01	1.149E+00	7.359E-01	5.324E-04	2.089E-03
1.050	1.050	4.625E-04	3.029E-01	1.175E+00	5.623E-01	8.308E-04	1.787E-03
1.100	1.100	4.762E-04	2.748E-01	1.210E+00	4.419E-01	1.324E-03	1.566E-03
1.150	1.150	4.704E-04	2.487E-01	1.231E+00	3.546E-01	2.127E-03	1.628E-03
1.200	1.200	4.624E-04	2.245E-01	1.232E+00	2.900E-01	3.353E-03	1.656E-03
1.250	1.250	4.463E-04	2.021E-01	1.191E+00	2.408E-01	5.051E-03	1.744E-03
1.300	1.300	4.151E-04	1.813E-01	1.105E+00	2.031E-01	7.108E-03	1.846E-03
1.400	1.400	3.005E-04	1.407E-01	7.717E-01	1.477E-01	1.032E-02	1.875E-03
1.500	1.500	8.341E-05	7.845E-02	2.274E-01	8.402E-02	8.117E-03	1.823E-03
1.600	1.600	4.417E-05	4.118E-02	7.612E-02	4.982E-02	4.075E-03	1.756E-03
2.000	2.000	3.831E-05	2.002E-02	2.734E-02	2.920E-02	2.022E-03	1.541E-03

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-20.1	89.9	.1	93.8	-139.0	18.0
250	250	-32.8	89.9	.1	91.3	-127.5	64.2
300	300	-43.7	90.5	.0	93.3	-117.1	-4.1
350	350	-63.2	91.1	-2.2	95.7	-59.0	-22.0
400	400	-85.7	91.1	-3.3	97.1	43.2	-24.8
450	450	-97.6	91.0	-3.3	98.5	57.7	-11.8
500	500	-106.0	91.0	-2.2	100.8	55.7	82.7
550	550	-111.9	91.4	.0	105.2	8.8	114.1
600	600	-116.4	93.0	.2	113.8	-48.4	124.7
650	625	-118.3	95.0	.2	121.6	-53.4	131.7
700	650	-120.8	98.8	.3	133.8	-50.1	143.6
750	675	-123.8	104.6	.4	151.9	-41.8	163.1
800	700	-126.3	110.1	.6	174.4	-33.2	-172.4
850	725	-128.6	110.9	.7	184.7	-24.8	-149.4
900	750	-130.6	107.5	.9	-149.5	-17.1	-132.3
950	800	-133.9	100.0	1.3	-133.1	-5.3	-112.8
1000	850	-136.7	95.6	1.9	-126.0	2.0	-103.4
1050	900	-139.1	92.8	2.5	-122.9	6.6	-98.4
1100	950	-141.2	90.6	3.2	-122.0	9.9	-95.4
1150	1000	-143.3	88.8	4.1	-122.3	13.7	-92.7
1200	1050	-145.3	89.0	6.2	-123.3	20.7	-86.4
1250	1100	-148.6	86.9	8.8	-124.9	28.2	-80.7
1300	1150	-150.0	85.5	12.3	-127.1	36.5	-76.1
1350	1200	-150.2	83.8	16.5	-129.8	45.9	-72.7
1400	1250	-149.2	81.7	21.4	-133.1	55.5	-70.4
1450	1300	-147.0	79.3	26.8	-136.7	68.1	-69.1
1500	1400	-141.6	74.4	37.7	-144.1	94.0	-65.9
1550	1500	-147.0	62.9	46.3	-159.9	135.4	-60.4
1600	1600	-176.3	45.9	35.7	-178.3	148.3	-61.4
1650	1700	161.0	26.4	19.9	161.5	147.1	-65.9

REC = 33 HEADING = 90. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
1.200	1.200	1.930E-02	9.912E-01	9.965E-01	5.412E-03	2.999E-05	1.081E-05
1.250	1.250	6.441E-03	9.821E-01	9.977E-01	1.472E-02	3.451E-05	4.390E-06
1.300	1.300	2.751E-03	1.042E+00	1.003E+00	3.347E-02	2.330E-05	8.553E-05
1.350	1.350	1.583E-03	1.140E+00	1.021E+00	7.345E-02	1.396E-05	3.532E-04
1.400	1.400	1.202E-03	1.153E+00	1.037E+00	1.491E-01	2.569E-05	2.709E-04
1.450	1.450	1.043E-03	1.125E+00	1.050E+00	2.939E-01	3.238E-05	9.223E-05
1.500	1.500	9.605E-04	1.084E+00	1.056E+00	5.717E-01	3.029E-05	2.800E-05
1.550	1.550	9.859E-04	1.047E+00	1.051E+00	1.155E+00	2.305E-05	2.625E-04
1.600	1.600	8.133E-04	1.019E+00	1.033E+00	2.439E+00	4.055E-05	1.184E-03
1.650	1.650	7.775E-04	1.000E+00	1.019E+00	3.541E+00	7.246E-05	2.140E-03
1.700	1.700	7.508E-04	9.760E-01	1.013E+00	4.877E+00	9.216E-05	3.195E-03
1.750	1.750	7.335E-04	9.019E-01	1.024E+00	5.992E+00	8.630E-05	4.051E-03
1.800	1.800	7.155E-04	7.873E-01	1.034E+00	6.293E+00	8.475E-05	4.569E-03
1.850	1.850	6.977E-04	5.698E-01	1.043E+00	5.622E+00	8.611E-05	4.548E-03
1.900	1.900	6.795E-04	5.832E-01	1.054E+00	4.553E+00	9.105E-05	4.189E-03
1.950	1.950	6.411E-04	4.928E-01	1.075E+00	2.802E+00	1.132E-04	3.363E-03
2.000	2.000	6.015E-04	4.475E-01	1.095E+00	1.797E+00	1.565E-04	2.791E-03
2.050	2.050	5.619E-04	4.112E-01	1.114E+00	1.233E+00	2.334E-04	2.421E-03
2.100	2.100	5.243E-04	3.771E-01	1.129E+00	8.932E-01	3.652E-04	2.166E-03
2.150	2.150	4.929E-04	3.421E-01	1.143E+00	6.732E-01	5.737E-04	1.943E-03
2.200	2.200	4.679E-04	3.091E-01	1.171E+00	5.241E-01	7.852E-04	1.635E-03
2.250	2.250	4.565E-04	2.513E-01	1.219E+00	4.181E-01	1.127E-03	1.490E-03
2.300	2.300	4.454E-04	2.260E-01	1.220E+00	3.388E-01	1.682E-03	1.451E-03
2.350	2.350	4.316E-04	2.026E-01	1.187E+00	2.899E-01	2.557E-03	1.491E-03
2.400	2.400	4.090E-04	1.810E-01	1.108E+00	2.355E-01	3.857E-03	1.558E-03
2.450	2.450	3.203E-04	1.737E-01	7.843E-01	2.002E-01	5.569E-03	1.663E-03
2.500	2.500	9.951E-05	1.734E-02	2.223E-01	1.471E-01	8.862E-03	1.698E-03
2.550	2.550	4.535E-05	4.055E-02	7.290E-02	8.381E-02	8.025E-03	1.668E-03
2.600	2.600	3.775E-05	1.983E-02	2.639E-02	4.894E-02	4.292E-03	1.671E-03
2.650	2.650				2.816E-02	2.137E-03	1.530E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-20.0	89.8	.1	91.1	-109.8	15.5
.250	.250	-32.7	89.9	.1	91.8	-101.1	56.3
.300	.300	-43.7	90.4	.0	94.4	-80.6	2.3
.350	.350	-63.5	91.0	-1	97.7	-14.5	-11.8
.400	.400	-86.1	91.1	-2	99.6	21.6	-14.3
.450	.450	-98.0	91.1	-2	101.8	34.4	-5.4
.500	.500	-106.3	91.2	-0	105.2	33.9	73.2
.550	.550	-112.3	91.8	.1	111.2	12.9	122.5
.600	.600	-116.8	93.7	.2	122.3	-23.8	136.3
.625	.625	-118.3	95.6	.2	131.2	-35.0	144.1
.650	.650	-121.4	98.7	.3	143.5	-35.1	155.6
.675	.675	-124.3	102.3	.4	158.8	-28.4	172.0
.700	.700	-126.8	104.8	.6	175.1	-21.6	-169.8
.725	.725	-128.0	105.3	.8	-170.1	-15.0	-153.1
.750	.750	-130.9	104.0	1.0	-153.3	-3.9	-139.5
.800	.800	-134.2	99.9	1.4	-143.4	.9	-121.8
.850	.850	-136.8	96.5	1.9	-135.7	7.4	-112.2
.900	.900	-139.1	94.0	2.6	-131.9	11.0	-106.9
.950	.950	-141.1	91.8	3.2	-130.3	13.1	-103.7
1.000	1.000	-143.2	90.0	4.2	-130.1	15.4	-101.2
1.050	1.050	-146.3	89.1	6.2	-130.7	20.9	-95.1
1.100	1.100	-148.7	87.9	8.8	-132.0	26.8	-89.4
1.150	1.150	-150.5	86.5	12.1	-133.9	33.2	-84.6
1.200	1.200	-151.3	84.7	16.2	-136.3	40.7	-80.8
1.250	1.250	-151.1	82.6	21.1	-139.2	49.7	-78.2
1.300	1.300	-149.7	80.1	26.5	-142.6	60.0	-76.5
1.350	1.350	-145.1	75.1	37.8	-149.4	84.3	-73.2
1.400	1.400	-140.5	63.3	47.2	-164.2	127.3	-67.3
1.450	1.450	-173.2	46.9	35.6	178.1	143.1	-67.8
1.500	1.500	162.4	26.2	19.2	158.0	144.5	-71.3

REC = 34

HEADING = 90. DEG
SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	1.926E-02	9.882E-01	9.973E-01	5.405E-03	5.029E-05	1.293E-05
.250	.250	6.410E-03	9.810E-01	9.964E-01	1.425E-02	6.154E-05	4.663E-06
.300	.300	2.737E-03	1.035E+00	1.002E+00	3.322E-02	5.144E-05	1.221E-04
.350	.350	1.577E-03	1.126E+00	1.021E+00	7.253E-02	5.164E-05	5.127E-04
.400	.400	1.206E-03	1.141E+00	1.039E+00	1.472E-01	7.995E-05	4.115E-04
.450	.450	1.059E-03	1.117E+00	1.052E+00	2.887E-01	9.520E-05	1.600E-04
.500	.500	9.713E-04	1.080E+00	1.057E+00	5.655E-01	8.597E-05	3.653E-05
.550	.550	8.953E-04	1.046E+00	1.051E+00	1.135E+00	7.017E-05	2.410E-04
.600	.600	8.293E-04	1.018E+00	1.033E+00	2.356E+00	9.707E-05	1.145E-03
.625	.625	7.837E-04	9.972E-01	1.019E+00	3.358E+00	1.491E-04	2.069E-03
.650	.650	7.573E-04	9.642E-01	1.015E+00	4.492E+00	1.804E-04	3.032E-03
.675	.675	7.406E-04	9.977E-01	1.024E+00	5.372E+00	1.597E-04	3.727E-03
.700	.700	7.243E-04	7.924E-01	1.033E+00	5.542E+00	1.632E-04	4.116E-03
.725	.725	7.068E-04	6.849E-01	1.043E+00	4.980E+00	1.615E-04	4.086E-03
.750	.750	6.899E-04	6.024E-01	1.053E+00	4.111E+00	1.641E-04	3.801E-03
.800	.800	6.505E-04	5.088E-01	1.073E+00	2.609E+00	1.835E-04	3.138E-03
.850	.850	6.101E-04	4.584E-01	1.092E+00	1.742E+00	2.253E-04	2.673E-03
.900	.900	5.692E-04	4.190E-01	1.110E+00	1.195E+00	2.998E-04	2.370E-03
.950	.950	5.308E-04	3.818E-01	1.125E+00	8.775E-01	4.276E-04	2.162E-03
1.000	1.000	4.965E-04	3.451E-01	1.138E+00	6.685E-01	5.215E-04	1.966E-03
1.050	1.050	4.791E-04	3.109E-01	1.163E+00	5.246E-01	7.573E-04	1.630E-03
1.100	1.100	4.611E-04	2.798E-01	1.198E+00	4.215E-01	9.784E-04	1.461E-03
1.150	1.150	4.445E-04	2.514E-01	1.207E+00	3.450E-01	1.350E-03	1.402E-03
1.200	1.200	4.304E-04	2.253E-01	1.210E+00	2.871E-01	1.970E-03	1.420E-03
1.250	1.250	4.177E-04	2.014E-01	1.183E+00	2.420E-01	2.965E-03	1.489E-03
1.300	1.300	4.019E-04	1.794E-01	1.115E+00	2.065E-01	4.409E-03	1.594E-03
1.400	1.400	3.889E-04	1.376E-01	9.062E-01	1.529E-01	7.795E-03	1.627E-03
1.500	1.500	1.173E-04	7.562E-02	2.188E-01	8.685E-02	8.173E-03	1.599E-03
1.600	1.600	4.891E-05	3.951E-02	6.039E-02	4.940E-02	4.570E-03	1.651E-03
1.800	1.800	3.734E-05	1.940E-02	2.336E-02	2.800E-02	2.261E-03	1.557E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-20.0	89.8	.1	91.0	-89.1	15.2
250	250	-32.7	89.8	.1	91.7	-81.3	50.9
300	300	-49.8	90.3	.0	94.7	-58.9	5.8
350	350	-63.8	90.9	-.1	98.3	-28.6	-6.1
400	400	-86.5	91.0	-.1	100.4	20.9	-8.3
450	450	-93.4	91.0	-.0	102.7	71.7	-1.4
500	500	-108.7	91.1	.1	106.3	31.5	57.6
550	550	-112.6	91.8	.2	112.4	15.8	122.5
600	600	-117.3	93.7	.3	123.9	-13.5	138.8
625	625	-119.3	95.5	.2	132.8	-25.2	146.6
650	650	-121.9	98.5	.3	144.9	-26.3	157.5
675	675	-124.8	101.7	.4	159.6	-20.4	172.6
700	700	-127.2	104.0	.6	175.0	-14.5	-170.7
725	725	-129.4	104.5	.8	-171.1	-3.8	-155.2
750	750	-131.2	103.5	1.0	-160.0	-3.4	-142.6
800	800	-134.4	100.1	1.5	-145.5	5.6	-125.8
850	850	-136.9	97.0	2.0	-138.0	11.6	-116.8
900	900	-139.1	94.5	2.7	-134.1	14.8	-111.8
950	950	-141.1	92.4	3.4	-132.5	16.2	-109.1
1000	1000	-143.1	90.6	4.3	-132.2	17.3	-107.0
1050	1050	-146.2	89.7	6.2	-132.8	21.5	-101.8
1100	1100	-148.8	88.6	8.8	-134.1	25.7	-96.6
1150	1150	-150.9	87.1	12.0	-135.9	30.1	-92.0
1200	1200	-152.3	85.3	15.9	-138.2	35.4	-88.3
1250	1250	-153.9	83.2	20.6	-140.9	42.4	-85.5
1300	1300	-155.2	80.7	26.0	-144.0	51.3	-83.7
1350	1350	-148.4	75.6	37.9	-150.4	74.0	-90.4
1400	1400	-146.3	63.6	48.6	-164.5	119.2	-74.6
1450	1450	-170.2	46.9	35.7	-178.3	139.3	-74.5
1500	1500	163.9	25.8	18.6	158.2	142.1	-76.7

REC = 35	HEADING =	90. DEG	SHIP SPEED = 25. KNOTS			
		RAO (MOTION/HAVENT)**2				
WE	SURGE	SWAY	HEAVE			
M			PITCH			
			YAW			
.200	1.920E-02	9.857E-01	9.971E-01	5.392E-03	8.654E-05	1.343E-05
.250	6.372E-03	9.800E-01	9.963E-01	1.426E-02	1.055E-04	4.730E-06
.300	2.716E-03	1.027E+00	1.003E+00	3.302E-02	1.035E-04	1.491E-04
.350	1.575E-03	1.111E+00	1.024E+00	7.159E-02	1.188E-04	6.493E-04
.400	1.214E-03	1.127E+00	1.042E+00	1.452E-01	1.688E-04	5.445E-04
.450	1.072E-03	1.109E+00	1.054E+00	2.844E-01	1.932E-04	2.291E-04
.500	9.893E-04	1.073E+00	1.059E+00	5.559E-01	1.708E-04	4.629E-05
.550	9.062E-04	1.047E+00	1.053E+00	1.104E+00	1.433E-04	2.148E-04
.600	8.296E-04	1.012E+00	1.035E+00	2.215E+00	1.730E-04	1.074E-03
.625	7.822E-04	9.866E-01	1.021E+00	3.064E+00	2.535E-04	1.926E-03
.650	7.560E-04	9.488E-01	1.018E+00	3.945E+00	2.970E-04	2.738E-03
.675	7.502E-04	8.846E-01	1.026E+00	4.537E+00	2.784E-04	3.231E-03
.700	7.340E-04	7.923E-01	1.035E+00	4.895E+00	2.654E-04	3.486E-03
.725	7.171E-04	6.984E-01	1.044E+00	4.158E+00	2.578E-04	3.464E-03
.750	6.991E-04	6.232E-01	1.053E+00	3.504E+00	2.557E-04	3.275E-03
.800	6.502E-04	5.291E-01	1.072E+00	2.328E+00	2.679E-04	2.825E-03
.850	6.187E-04	4.732E-01	1.090E+00	1.581E+00	3.041E-04	2.495E-03
.900	5.764E-04	4.297E-01	1.107E+00	1.129E+00	3.731E-04	2.285E-03
.950	5.356E-04	3.895E-01	1.121E+00	8.430E-01	4.938E-04	2.141E-03
1.000	5.002E-04	3.506E-01	1.135E+00	6.510E-01	6.723E-04	1.985E-03
1.050	4.795E-04	3.142E-01	1.155E+00	5.160E-01	7.427E-04	1.635E-03
1.100	4.561E-04	2.825E-01	1.177E+00	4.184E-01	8.702E-04	1.452E-03
1.150	4.348E-04	2.523E-01	1.194E+00	3.452E-01	1.109E-03	1.379E-03
1.200	4.176E-04	2.262E-01	1.199E+00	2.892E-01	1.543E-03	1.386E-03
1.250	4.048E-04	2.012E-01	1.179E+00	2.454E-01	2.331E-03	1.451E-03
1.300	3.937E-04	1.786E-01	1.122E+00	2.106E-01	3.582E-03	1.557E-03
1.400	3.548E-04	1.362E-01	8.353E-01	1.570E-01	7.035E-03	1.593E-03
1.600	1.569E-04	7.419E-02	2.177E-01	8.908E-02	8.551E-03	1.572E-03
1.800	5.191E-05	3.855E-02	5.563E-02	5.028E-02	4.911E-03	1.655E-03
2.000	3.666E-05	1.898E-02	2.425E-02	2.776E-02	2.395E-03	1.606E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-20.0	89.7	.1	90.9	-71.9	15.8
.250	.250	-32.7	89.8	.1	91.8	-65.7	47.9
.300	.300	-50.0	90.2	.0	94.9	-44.4	8.0
.350	.350	-70.2	90.8	.0	99.0	1.3	-2.5
.400	.400	-86.9	90.9	.0	101.4	23.9	-4.6
.450	.450	-98.7	91.0	.2	103.9	33.5	.8
.500	.500	-106.9	91.1	.3	107.8	33.2	47.3
.550	.550	-112.9	91.8	.4	114.4	19.5	123.8
.600	.600	-117.6	93.7	.3	126.3	-6.3	142.4
.625	.625	-119.8	95.5	.2	135.4	-17.7	150.2
.650	.650	-122.4	98.2	.3	147.2	-19.4	160.2
.675	.675	-125.2	101.0	.5	161.0	-14.0	173.9
.700	.700	-127.6	102.9	.7	175.0	-8.7	-171.2
.725	.725	-129.7	103.4	.9	-172.4	-3.6	-157.4
.750	.750	-131.5	102.7	1.1	-162.2	1.2	-145.9
.800	.800	-134.5	100.0	1.6	-148.5	9.6	-130.3
.850	.850	-137.0	97.3	2.2	-141.1	15.3	-121.7
.900	.900	-139.1	95.1	2.8	-137.2	18.2	-117.1
.950	.950	-141.0	93.1	3.5	-135.5	19.1	-114.6
1.000	1.000	-143.0	91.3	4.4	-135.2	19.3	-112.8
1.050	1.050	-146.2	90.4	5.3	-135.7	22.3	-110.5
1.100	1.100	-148.8	89.2	6.7	-136.9	24.9	-104.0
1.150	1.150	-151.2	87.8	8.7	-138.5	27.3	-99.7
1.200	1.200	-153.1	86.0	11.9	-140.7	30.3	-95.9
1.250	1.250	-154.3	83.9	15.6	-143.2	35.1	-93.0
1.300	1.300	-154.4	81.4	20.1	-146.1	42.3	-91.0
1.400	1.400	-151.5	76.3	27.7	-152.1	63.3	-87.9
1.500	1.500	-146.3	64.1	37.3	-165.5	111.1	-82.1
1.600	1.600	-167.5	47.0	50.3	-177.8	133.6	-81.1
1.800	1.800	165.4	25.6	35.1	157.9	139.7	-82.0
2.000	2.000			17.9			

REC = 36

HEADING = 105. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/AVEHT)**2

WE	M	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.203	.200	5.279E-02	8.984E-01	1.002E+00	5.160E-03	4.295E-04	1.464E-04
.254	.250	3.394E-02	3.801E-01	1.001E+00	1.373E-02	9.866E-04	4.391E-04
.306	.300	3.572E-02	9.545E-01	1.006E+00	3.365E-02	1.009E-03	8.358E-04
.358	.350	3.385E-02	1.029E+00	1.020E+00	7.673E-02	3.271E-03	1.770E-03
.411	.400	3.275E-02	1.017E+00	1.031E+00	1.616E-01	5.723E-03	3.397E-03
.464	.450	3.183E-02	9.680E-01	1.036E+00	3.346E-01	9.215E-03	5.794E-03
.517	.500	3.093E-02	9.119E-01	1.035E+00	7.189E-01	1.453E-02	9.266E-03
.571	.550	2.998E-02	8.667E-01	1.008E+00	1.716E-00	2.166E-02	1.482E-02
.624	.600	2.894E-02	8.449E-01	9.663E-01	5.033E+00	3.082E-02	2.653E-02
.652	.625	2.845E-02	8.226E-01	9.532E-01	9.433E-00	3.628E-02	3.873E-02
.679	.650	2.794E-02	6.953E-01	9.505E-01	1.679E-01	4.283E-02	5.617E-02
.706	.675	2.742E-02	3.873E-01	9.463E-01	2.052E+01	4.934E-02	6.093E-02
.733	.700	2.688E-02	2.055E-01	9.420E-01	1.534E-01	5.797E-02	4.616E-02
.761	.725	2.630E-02	1.894E-01	9.358E-01	9.787E+00	6.705E-02	3.415E-02
.783	.750	2.570E-02	2.095E-01	9.282E-01	6.477E+00	7.715E-02	2.862E-02
.844	.800	2.439E-02	2.315E-01	9.385E-01	3.455E+00	1.004E-01	2.624E-02
.899	.850	2.292E-02	2.235E-01	8.928E-01	2.224E+00	1.271E-01	2.745E-02
.955	.900	2.126E-02	1.999E-01	8.512E-01	1.594E+00	1.563E-01	2.933E-02
1.011	.950	1.936E-02	1.706E-01	8.204E-01	1.207E+00	1.876E-01	3.083E-02
1.068	1.000	1.716E-02	1.422E-01	8.065E-01	9.446E-01	2.236E-01	3.193E-02
1.125	1.050	1.473E-02	1.154E-01	7.984E-01	7.554E-01	2.573E-01	3.280E-02
1.182	1.100	1.211E-02	9.04E-02	7.855E-01	6.346E-01	2.817E-01	3.352E-02
1.240	1.150	9.390E-03	6.91E-02	7.457E-01	5.326E-01	2.890E-01	3.368E-02
1.298	1.200	6.833E-03	5.09E-02	6.566E-01	4.490E-01	2.704E-01	3.320E-02
1.356	1.250	4.650E-03	3.50E-02	5.157E-01	3.744E-01	2.309E-01	3.182E-02
1.415	1.300	2.893E-03	2.418E-02	3.381E-01	2.931E-01	1.742E-01	2.855E-02
1.533	1.400	1.897E-03	1.020E-02	9.605E-02	1.687E-01	8.013E-02	2.143E-02
1.774	1.600	1.903E-04	3.61E-03	9.751E-03	3.489E-02	9.957E-03	8.006E-03
2.020	1.800	7.170E-05	3.287E-03	3.419E-03	5.702E-03	1.271E-03	1.673E-03
2.271	2.000	3.106E-05	1.200E-03	9.695E-04	6.695E-03	3.179E-04	1.082E-03

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	52.8	89.9	.0	93.3	-102.2	-178.0
.234	.250	66.3	89.9	.1	93.1	-97.2	-178.9
.306	.300	74.2	90.6	-.1	93.9	-93.8	-171.2
.359	.350	78.5	91.1	-.3	102.9	-91.5	-167.2
.411	.400	80.3	91.2	-.4	106.5	-90.3	-172.2
.464	.450	80.9	91.3	-.3	110.7	-89.4	-178.1
.517	.500	80.6	91.9	-.2	116.2	-88.3	-176.5
.571	.550	79.9	93.5	-.0	124.3	-85.9	-171.6
.624	.600	78.8	98.6	.1	139.2	-85.2	-169.1
.652	.625	78.4	104.8	.1	153.9	-84.4	-172.8
.679	.650	78.0	114.9	.2	178.2	-83.7	-176.4
.706	.675	77.6	122.1	.2	-149.5	-82.9	-160.3
.733	.700	77.1	111.4	.2	-121.5	-82.0	-149.9
.761	.725	76.6	96.4	.2	-103.6	-81.1	-148.7
.788	.750	76.1	88.8	.2	-92.4	-80.1	-151.9
.814	.800	75.0	83.2	.2	-79.4	-77.8	-160.0
.844	.850	73.9	80.6	.0	-72.0	-75.1	-166.5
.899	.900	72.9	78.4	-.2	-67.1	-72.1	-171.7
.955	.950	72.2	76.5	-.3	-63.3	-68.5	-175.6
1.011	1.000	72.4	75.0	.4	-59.6	-63.8	-178.2
1.068	1.050	72.7	72.7	1.9	-56.6	-58.1	-179.2
1.125	1.100	73.2	69.5	4.7	-54.3	-51.5	-176.4
1.182	1.150	73.5	65.2	9.2	-52.9	-48.0	-173.3
1.238	1.200	73.0	59.6	15.1	-52.3	-36.3	-169.6
1.295	1.250	71.0	52.5	21.8	-52.5	-28.9	-165.6
1.415	1.300	67.2	45.9	28.9	-52.5	-21.6	-162.6
1.533	1.400	52.0	25.4	34.6	-54.5	-12.5	-155.4
1.774	1.600	-1.8	-49.1	-14.7	-72.4	-18.9	-131.8
2.020	1.800	-67.2	-104.5	-56.0	-147.2	-65.9	-77.8
2.271	2.000	-136.3	-157.1	-104.2	153.8	-160.1	4.3

REC = 37

HEADING = 105. DEG
RAO (MOTION/NAVENT)**2

SHIP SPEED = 10. KNOTS

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	4.985E-02	8.632E-01	1.000E+00	5.229E-03	4.854E-04	6.310E-05
.253	.250	3.723E-02	8.419E-01	9.399E-01	1.405E-02	1.076E-03	2.844E-04
.312	.300	3.285E-02	9.222E-01	1.008E+00	3.577E-02	1.969E-03	4.246E-04
.367	.350	3.077E-02	9.763E-01	1.024E+00	8.093E-02	3.324E-03	1.037E-03
.422	.400	2.943E-02	9.534E-01	1.037E+00	1.742E-01	5.557E-03	2.400E-03
.473	.450	2.830E-02	9.005E-01	1.043E+00	3.720E-01	9.080E-03	4.851E-03
.534	.500	2.723E-02	8.435E-01	1.037E+00	8.394E-01	1.436E-02	8.175E-03
.591	.550	2.616E-02	7.949E-01	1.014E+00	2.134E+00	2.183E-02	1.442E-02
.643	.600	2.506E-02	7.202E-01	9.828E-01	6.184E+00	3.143E-02	2.809E-02
.678	.625	2.455E-02	5.949E-01	9.855E-01	9.393E+00	3.703E-02	3.737E-02
.707	.650	2.401E-02	3.953E-01	9.879E-01	1.041E+01	4.355E-02	3.953E-02
.737	.675	2.346E-02	2.711E-01	9.899E-01	8.314E+00	5.054E-02	3.358E-02
.767	.700	2.289E-02	2.382E-01	9.913E-01	5.866E+00	5.930E-02	2.774E-02
.796	.725	2.233E-02	2.364E-01	9.922E-01	4.173E+00	6.862E-02	2.453E-02
.826	.750	2.169E-02	2.379E-01	9.925E-01	3.092E+00	7.911E-02	2.318E-02
.857	.800	2.039E-02	2.295E-01	9.913E-01	1.934E+00	1.030E-01	2.318E-02
.948	.850	1.894E-02	2.077E-01	9.874E-01	1.359E+00	1.304E-01	2.442E-02
1.013	.900	1.730E-02	1.795E-01	9.868E-01	1.012E+00	1.603E-01	2.558E-02
1.073	.950	1.533E-02	1.510E-01	1.115E+00	7.892E-01	1.974E-01	2.645E-02
1.135	1.000	1.325E-02	1.252E-01	1.156E+00	6.351E-01	2.337E-01	2.747E-02
1.200	1.050	1.087E-02	1.009E-01	1.196E+00	5.292E-01	2.620E-01	2.840E-02
1.264	1.100	8.348E-03	7.900E-02	1.159E+00	4.502E-01	2.712E-01	2.906E-02
1.330	1.150	5.955E-03	5.960E-02	9.271E-01	3.876E-01	2.531E-01	2.930E-02
1.396	1.200	3.858E-03	4.330E-02	6.833E-01	3.191E-01	2.066E-01	2.785E-02
1.462	1.250	2.393E-03	3.025E-02	4.161E-01	2.564E-01	1.493E-01	2.557E-02
1.533	1.300	1.513E-03	2.050E-02	2.180E-01	2.032E-01	1.005E-01	2.305E-02
1.656	1.400	6.558E-04	8.776E-03	4.411E-02	1.202E-01	4.070E-02	1.761E-02
1.948	1.600	1.736E-04	2.391E-03	7.392E-03	2.102E-02	6.259E-03	5.688E-03
2.240	1.800	4.608E-05	1.997E-03	1.887E-03	3.084E-03	7.175E-04	1.026E-03
2.543	2.000	1.807E-05	7.017E-04	5.763E-04	3.822E-03	1.448E-04	6.797E-04

PHASE (MOTION-AVERT)

HE	WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	.200	52.8	89.9	.1	94.0	-97.9	-170.8
.253	.250	.250	66.3	89.9	.1	96.0	-93.9	-177.0
.312	.300	.300	74.4	90.7	.0	100.8	-90.0	-163.5
.367	.350	.350	78.6	91.1	.2	105.5	-87.8	-162.0
.422	.400	.400	80.5	91.3	.2	109.6	-87.0	-169.9
.473	.450	.450	81.0	91.5	.2	114.6	-86.5	-177.3
.534	.500	.500	80.7	92.4	.0	121.7	-85.6	-176.7
.591	.550	.550	80.0	95.1	.1	133.8	-84.2	-172.6
.649	.600	.600	79.2	103.4	.2	159.4	-82.4	-176.3
.678	.625	.625	78.9	113.3	.2	177.3	-81.6	-173.5
.707	.650	.650	78.6	113.3	.3	149.9	-80.8	-161.3
.737	.675	.675	78.2	107.1	.4	126.5	-79.9	-153.5
.767	.700	.700	77.8	98.6	.4	110.1	-78.8	-151.7
.795	.725	.725	77.3	92.8	.5	99.0	-77.7	-153.4
.825	.750	.750	76.9	89.4	.5	91.3	-75.4	-156.2
.887	.800	.800	76.0	85.4	.7	81.1	-75.5	-162.2
.948	.850	.850	75.2	82.7	.8	74.7	-70.2	-167.4
1.017	.910	.910	74.8	82.7	1.3	70.0	-66.2	-171.5
1.136	.950	.950	75.3	79.4	2.9	65.4	-60.9	-174.1
1.200	1.000	1.000	76.2	77.4	5.8	61.7	-54.4	-176.6
1.264	1.050	1.050	77.2	74.7	10.7	56.8	-46.6	-179.3
1.330	1.100	1.100	78.1	70.9	17.9	56.6	-37.8	-177.7
1.396	1.150	1.150	77.8	66.1	26.9	55.4	-28.7	-174.2
1.462	1.200	1.200	75.9	61.5	37.4	54.4	-19.2	-171.3
1.530	1.250	1.250	71.2	56.5	47.2	53.6	-11.1	-168.7
1.596	1.300	1.300	63.8	49.9	53.9	53.4	-5.5	-155.7
1.663	1.400	1.400	44.9	29.3	53.5	54.7	-.7	-158.6
1.748	1.600	1.600	-3.5	-44.3	55.7	69.8	-23.2	-136.9
2.040	1.800	1.800	-63.5	-101.2	-55.7	154.4	-53.3	80.6
2.543	2.000	2.000	-142.8	-142.3	-111.9	148.7	178.7	6.7

REC = 38

HEADING = 105. DEG

SHIP SPEED = 15. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.208	.200	4.713E-02	8.247E-01	9.992E-01	5.278E-03	5.553E-04	1.526E-05
.263	.200	3.475E-02	8.012E-01	9.992E-01	1.434E-02	1.187E-03	1.480E-04
.313	.300	3.026E-02	8.819E-01	1.011E+00	3.633E-02	2.010E-03	1.425E-04
.375	.350	2.802E-02	9.185E-01	1.030E+00	8.468E-02	3.243E-03	5.141E-04
.433	.400	2.651E-02	8.893E-01	1.045E+00	1.835E-01	5.356E-03	1.605E-03
.491	.450	2.525E-02	8.318E-01	1.352E+00	4.014E-01	8.837E-03	3.714E-03
.551	.500	2.408E-02	7.680E-01	1.045E+00	9.164E-01	1.426E-02	7.337E-03
.612	.550	2.295E-02	6.863E-01	1.022E+00	2.158E+00	2.210E-02	1.379E-02
.673	.600	2.185E-02	5.298E-01	1.015E+00	3.991E+00	3.175E-02	2.225E-02
.705	.625	2.130E-02	4.224E-01	1.024E+00	4.187E+00	3.742E-02	2.391E-02
.735	.650	2.075E-02	3.421E-01	1.032E+00	3.693E+00	4.395E-02	2.314E-02
.768	.675	2.019E-02	2.984E-01	1.041E+00	2.977E+00	5.143E-02	2.168E-02
.803	.700	1.962E-02	2.758E-01	1.051E+00	2.354E+00	5.991E-02	2.062E-02
.832	.725	1.903E-02	2.611E-01	1.061E+00	1.833E+00	6.945E-02	2.014E-02
.863	.750	1.843E-02	2.483E-01	1.071E+00	1.539E+00	8.006E-02	2.013E-02
.897	.800	1.716E-02	2.211E-01	1.093E+00	1.094E+00	1.043E-01	2.066E-02
.997	.850	1.576E-02	1.910E-01	1.117E+00	8.281E-01	1.319E-01	2.185E-02
1.065	.900	1.412E-02	1.618E-01	1.134E+00	6.347E-01	1.669E-01	2.231E-02
1.134	.950	1.229E-02	1.368E-01	1.275E+00	5.113E-01	2.047E-01	2.315E-02
1.204	1.000	1.020E-02	1.102E-01	1.394E+00	4.272E-01	2.387E-01	2.411E-02
1.275	1.050	7.880E-03	8.791E-02	1.777E+00	3.673E-01	2.567E-01	2.501E-02
1.347	1.100	5.591E-03	6.816E-02	1.230E+00	3.219E-01	2.457E-01	2.570E-02
1.421	1.150	3.485E-03	5.033E-02	8.894E-01	2.651E-01	1.992E-01	2.441E-02
1.493	1.200	2.133E-03	3.625E-02	5.225E-01	2.173E-01	1.410E-01	2.284E-02
1.563	1.250	1.363E-03	2.536E-02	2.141E-01	1.768E-01	9.193E-02	2.108E-02
1.644	1.300	9.285E-04	1.724E-02	1.173E-01	1.424E-01	5.786E-02	1.916E-02
1.799	1.400	4.800E-04	6.806E-03	2.537E-02	8.175E-02	2.136E-02	1.387E-02
2.122	1.600	1.423E-04	1.563E-03	5.051E-03	1.261E-02	4.161E-03	4.085E-03
2.463	1.800	3.125E-05	1.256E-03	6.189E-04	1.803E-03	4.192E-04	6.487E-04
2.815	2.000	1.211E-05	4.432E-04	4.237E-04	2.303E-03	1.088E-04	4.533E-04

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	52.9	89.8	.1	94.9	-93.7	-153.3
.253	.250	66.4	89.6	.1	97.4	-90.4	-171.5
.318	.300	74.5	91.8	.0	103.8	-85.9	-146.5
.375	.350	78.7	91.2	.1	109.4	-83.9	-153.1
.433	.400	80.5	91.4	.1	114.7	-83.7	-167.0
.491	.450	81.1	91.9	.0	121.7	-83.7	-176.0
.551	.500	80.8	93.4	.1	132.5	-83.0	176.4
.612	.550	80.2	97.3	.2	151.5	-81.6	177.3
.673	.600	79.7	104.3	.3	-173.8	-79.9	-171.5
.705	.625	79.4	105.3	.4	-153.3	-79.0	-163.6
.735	.650	79.1	103.1	.5	-135.2	-78.1	-158.3
.768	.675	78.8	99.4	.6	-121.0	-77.0	-156.1
.800	.700	78.4	95.9	.8	-110.4	-75.8	-155.2
.832	.725	78.0	93.2	.9	-102.3	-74.5	-157.6
.865	.750	77.6	91.0	1.1	-96.1	-73.0	-153.5
.897	.800	77.0	87.7	1.5	-87.3	-69.6	-161.8
.930	.850	76.5	85.0	2.3	-81.3	-65.6	-167.9
1.065	.900	77.3	83.9	4.4	-75.6	-60.2	-170.3
1.134	.950	78.5	82.2	8.1	-70.9	-53.5	-172.6
1.204	1.000	80.1	79.0	14.1	-67.1	-45.2	-175.0
1.275	1.050	81.7	76.5	23.0	-64.2	-35.4	-177.8
1.347	1.100	82.2	72.7	34.2	-62.2	-24.8	-178.9
1.421	1.150	80.9	69.1	47.9	-60.3	-13.1	176.5
1.493	1.200	75.8	65.1	60.0	-58.9	-3.6	174.1
1.564	1.250	67.9	53.9	68.5	-57.8	2.8	171.5
1.644	1.300	53.8	53.0	72.5	-57.3	6.4	168.6
1.733	1.400	38.8	34.2	53.4	-58.0	3.0	161.8
2.122	1.600	-5.8	-41.0	6.7	-71.6	-26.4	141.1
2.461	1.800	-61.3	-99.1	-62.3	-166.0	-45.4	81.7
2.815	2.000	-149.5	-151.2	-120.1	137.6	153.6	6.8

REC = 39

HEADING = 105. DEG
RAOSHIP SPEED = 20. KNOTS
(MOTION/AVEHT)**2

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	4.059E-02	7.847E-01	9.985E-01	5.314E-03	6.809E-04	3.866E-06
.267	.250	2.247E-02	7.585E-01	9.991E-01	1.453E-02	1.303E-03	5.905E-05
.324	.300	2.900E-02	8.357E-01	1.015E+00	3.747E-02	2.014E-03	4.674E-05
.383	.350	2.555E-02	8.534E-01	1.037E+00	8.878E-02	3.104E-03	2.113E-04
.443	.400	2.394E-02	8.246E-01	1.054E+00	1.993E-01	5.026E-03	9.869E-04
.503	.450	2.289E-02	7.686E-01	1.062E+00	4.490E-01	8.556E-03	2.851E-03
.563	.500	2.132E-02	7.042E-01	1.055E+00	1.054E+00	1.418E-02	6.420E-03
.623	.550	2.023E-02	6.043E-01	1.033E+00	2.409E+00	2.243E-02	1.239E-02
.683	.600	1.913E-02	4.313E-01	1.054E+00	3.330E+00	3.111E-02	1.818E-02
.731	.625	1.857E-02	3.513E-01	1.063E+00	3.055E+00	3.744E-02	1.814E-02
.763	.650	1.802E-02	3.043E-01	1.083E+00	2.490E+00	4.375E-02	1.724E-02
.793	.675	1.747E-02	2.785E-01	1.100E+00	1.974E+00	5.124E-02	1.654E-02
.833	.700	1.691E-02	2.611E-01	1.119E+00	1.573E+00	5.976E-02	1.623E-02
.863	.725	1.634E-02	2.469E-01	1.139E+00	1.287E+00	6.937E-02	1.633E-02
.903	.750	1.576E-02	2.325E-01	1.161E+00	1.073E+00	8.026E-02	1.655E-02
.974	.800	1.434E-02	2.033E-01	1.206E+00	7.892E-01	1.045E-01	1.754E-02
1.045	.850	1.317E-02	1.733E-01	1.293E+00	5.924E-01	1.353E-01	1.805E-02
1.123	.900	1.163E-02	1.455E-01	1.427E+00	4.554E-01	1.722E-01	1.875E-02
1.195	.950	9.875E-03	1.210E-01	1.631E+00	3.830E-01	2.110E-01	1.973E-02
1.272	1.000	7.328E-03	9.835E-02	1.676E+00	3.285E-01	2.415E-01	2.080E-02
1.351	1.050	5.517E-03	7.807E-02	1.574E+00	2.885E-01	2.455E-01	2.182E-02
1.429	1.100	3.375E-03	5.895E-02	1.178E+00	2.385E-01	2.677E-01	2.093E-02
1.503	1.150	2.215E-03	4.355E-02	6.896E-01	1.975E-01	1.447E-01	2.001E-02
1.591	1.200	1.800E-03	3.153E-02	3.380E-01	1.463E-01	9.366E-02	1.989E-02
1.675	1.250	8.951E-04	2.211E-02	1.437E-01	1.349E-01	5.633E-02	1.762E-02
1.753	1.300	6.945E-04	1.467E-02	6.095E-02	1.068E-01	3.339E-02	1.562E-02
1.932	1.400	3.733E-04	5.444E-03	1.852E-02	5.849E-02	1.200E-02	1.076E-02
2.295	1.600	1.085E-04	1.033E-03	2.940E-03	7.752E-03	2.699E-03	2.874E-03
2.681	1.800	2.998E-05	9.255E-04	3.158E-04	1.173E-03	3.143E-04	4.236E-04
3.085	2.000	7.110E-06	2.233E-04	2.364E-04	1.826E-03	9.835E-05	3.355E-04

PHASE (MOTION-WAVEVENT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	89.8	52.9	89.8	.1	95.4	-89.0	-82.7
.250	89.8	66.5	89.8	.1	98.3	-86.5	-152.1
.300	90.8	74.7	90.8	-.0	105.8	-81.4	-92.9
.350	91.2	78.9	91.2	-.0	111.8	-79.8	-135.6
.400	91.5	80.7	91.5	.0	117.6	-80.5	-163.2
.450	92.2	81.2	92.2	.1	125.6	-81.1	-175.1
.500	94.2	81.0	94.2	.3	138.7	-30.6	-179.1
.550	80.4	80.4	99.1	.3	152.7	-79.0	-179.5
.600	80.1	80.1	104.5	.5	-157.4	-77.5	-163.9
.650	79.9	79.9	103.3	.7	-138.8	-76.6	-157.8
.700	73.6	73.6	100.2	.9	-124.0	-75.6	-155.0
.750	73.3	73.3	97.1	1.1	-112.8	-74.5	-154.6
.800	73.0	73.0	94.5	1.3	-104.5	-73.1	-155.6
.850	72.5	72.5	92.4	1.6	-98.0	-71.6	-157.4
.900	72.4	72.4	90.7	1.9	-93.0	-70.0	-159.5
.950	73.0	73.0	87.8	2.9	-85.7	-66.1	-163.7
1.000	78.6	78.6	85.5	4.9	-79.6	-61.1	-166.7
1.050	80.0	80.0	85.2	8.7	-74.3	-54.8	-158.9
1.100	91.9	91.9	83.2	15.0	-69.8	-46.5	-171.3
1.150	86.2	86.2	80.5	24.6	-66.3	-36.4	-173.9
1.200	85.9	85.9	76.9	37.2	-63.7	-24.5	-176.9
1.250	81.5	81.5	74.4	53.5	-61.4	-10.6	-179.2
1.300	73.1	73.1	71.2	68.3	-59.4	1.2	-178.6
1.350	67.0	67.0	67.0	78.9	-57.9	9.2	-176.2
1.400	61.6	61.6	61.6	84.7	-56.7	13.7	-173.7
1.450	55.5	55.5	55.5	78.5	-56.2	13.6	-170.9
1.500	38.6	38.6	38.6	48.7	-56.5	2.7	-164.7
1.550	-37.8	-37.8	-37.8	9.6	-70.8	-29.3	-143.8
1.600	-99.3	-99.3	-99.3	-76.4	-174.4	-46.7	80.2
1.650	-151.3	-151.3	-151.3	-117.1	132.8	150.0	4.8

REC = 40 HEADING = 105. DEG SHIP SPEED = 25. KNOTS MOTION/NAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.214	.200	4.219E-02	7.449E-01	9.988E-01	5.338E-03	7.359E-04	1.383E-05
.271	.250	3.037E-02	7.151E-01	1.002E+00	1.479E-02	1.436E-03	1.715E-05
.331	.300	2.574E-02	7.899E-01	1.022E+00	3.843E-02	1.959E-03	1.125E-04
.392	.350	2.333E-02	7.976E-01	1.046E+00	9.251E-02	2.882E-03	1.023E-04
.454	.400	2.165E-02	7.688E-01	1.055E+00	2.119E-01	4.747E-03	5.775E-04
.513	.450	2.027E-02	7.061E-01	1.073E+00	4.864E-01	8.228E-03	2.202E-03
.585	.500	1.905E-02	6.350E-01	1.067E+00	1.124E+00	1.410E-02	5.645E-03
.653	.550	1.791E-02	5.155E-01	1.059E+00	2.141E+00	2.225E-02	1.095E-02
.722	.600	1.681E-02	3.671E-01	1.095E+00	2.215E+00	3.102E-02	1.335E-02
.753	.625	1.626E-02	3.181E-01	1.116E+00	1.876E+00	3.688E-02	1.325E-02
.794	.650	1.572E-02	2.876E-01	1.139E+00	1.528E+00	4.334E-02	1.305E-02
.830	.675	1.513E-02	2.667E-01	1.164E+00	1.243E+00	5.001E-02	1.305E-02
.866	.700	1.466E-02	2.496E-01	1.193E+00	1.026E+00	5.966E-02	1.325E-02
.904	.725	1.412E-02	2.375E-01	1.224E+00	8.631E-01	6.874E-02	1.365E-02
.941	.750	1.357E-02	2.180E-01	1.257E+00	7.384E-01	7.957E-02	1.405E-02
1.017	.800	1.241E-02	1.855E-01	1.345E+00	5.530E-01	1.053E-01	1.475E-02
1.095	.850	1.132E-02	1.575E-01	1.500E+00	4.218E-01	1.327E-01	1.525E-02
1.175	.900	9.701E-03	1.317E-01	1.705E+00	3.409E-01	1.787E-01	1.605E-02
1.257	.950	7.998E-03	1.086E-01	1.903E+00	2.885E-01	2.199E-01	1.715E-02
1.340	1.000	5.967E-03	8.781E-02	1.928E+00	2.532E-01	2.447E-01	1.825E-02
1.425	1.050	3.699E-03	6.702E-02	1.575E+00	2.114E-01	2.269E-01	1.795E-02
1.511	1.100	2.063E-03	5.102E-02	9.629E-01	1.764E-01	1.667E-01	1.739E-02
1.593	1.150	1.233E-03	3.776E-02	6.699E-01	1.478E-01	1.044E-01	1.672E-02
1.683	1.200	8.455E-04	2.735E-02	2.043E-01	1.241E-01	6.178E-02	1.595E-02
1.781	1.250	6.341E-04	1.856E-02	7.809E-02	9.953E-02	3.447E-02	1.435E-02
1.874	1.300	4.894E-04	1.202E-02	3.555E-02	7.731E-02	1.932E-02	1.242E-02
2.055	1.400	2.028E-04	4.373E-03	1.440E-02	4.201E-02	7.245E-03	8.492E-03
2.470	1.600	8.462E-05	6.964E-04	1.865E-03	4.785E-03	1.366E-03	2.655E-03
2.901	1.800	1.825E-05	6.775E-04	2.247E-04	8.868E-04	2.333E-04	2.812E-04
3.353	2.000	4.459E-06	1.603E-04	2.165E-04	1.133E-03	8.770E-05	2.288E-04

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.214	.200	53.0	89.7	.1	96.0	-83.5	-31.8
.271	.250	66.6	89.8	.1	99.3	-82.1	-139.8
.331	.300	74.8	90.8	.0	103.2	-76.3	-39.5
.392	.350	79.0	91.3	.1	114.9	-75.7	-100.4
.454	.400	80.8	91.7	.2	121.7	-77.6	-157.8
.519	.450	81.3	92.7	.3	131.5	-73.9	-173.7
.585	.500	81.1	93.3	.4	148.3	-78.4	-178.6
.653	.550	80.7	95.3	.4	177.9	-76.8	-172.6
.722	.600	80.6	100.6	.9	144.3	-75.5	-158.5
.753	.625	80.4	100.5	1.1	129.4	-74.7	-155.0
.794	.650	80.1	98.1	1.4	117.9	-73.6	-153.9
.831	.675	79.9	95.8	1.7	109.2	-72.4	-154.4
.856	.700	79.6	93.9	2.1	102.4	-70.9	-155.8
.904	.725	79.4	92.3	2.5	97.1	-69.3	-157.6
.941	.750	79.2	90.9	3.1	92.8	-67.4	-159.6
1.017	.800	79.4	88.9	4.8	86.1	-63.1	-163.2
1.095	.850	80.7	88.0	8.3	80.0	-57.4	-165.5
1.175	.900	82.6	86.5	14.1	74.9	-50.0	-167.6
1.257	.950	85.4	84.2	23.4	70.6	-40.2	-170.0
1.340	1.000	88.5	81.2	36.5	67.3	-27.7	-172.8
1.425	1.050	91.0	79.0	54.4	64.7	-11.9	-175.1
1.511	1.100	88.1	76.4	72.2	62.3	2.9	-177.2
1.599	1.150	79.5	73.1	85.6	60.2	13.5	-179.4
1.689	1.200	69.2	68.7	93.6	58.5	19.7	178.3
1.781	1.250	59.1	64.1	87.6	57.5	20.3	175.7
1.874	1.300	49.8	58.7	73.7	56.9	16.8	173.1
2.066	1.400	31.6	42.4	45.6	56.8	1.2	167.2
2.471	1.500	-13.9	-36.8	11.1	72.2	-33.7	145.8
2.901	1.800	-59.4	-98.5	-82.0	173.9	-42.3	76.6
3.358	2.000	-166.3	-151.6	-119.3	128.2	144.0	6.5

REC = 41

HEADING = 120. DEG . SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)*2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	1.710E-01	6.984E-01	9.996E-01	4.235E-03	1.426E-03	4.718E-04
.258	.250	1.528E-01	6.778E-01	9.960E-01	1.145E-02	3.385E-03	1.285E-03
.312	.300	1.427E-01	7.408E-01	9.964E-01	2.919E-02	6.804E-03	2.705E-03
.366	.350	1.347E-01	7.779E-01	1.301E+00	6.922E-02	1.239E-02	5.605E-03
.421	.400	1.272E-01	7.473E-01	9.964E-01	1.539E-01	2.117E-02	1.005E-02
.477	.450	1.195E-01	6.895E-01	9.773E-01	3.430E-01	3.412E-02	1.595E-02
.533	.500	1.115E-01	6.261E-01	9.375E-01	8.155E-01	5.134E-02	2.395E-02
.590	.550	1.028E-01	5.699E-01	8.730E-01	2.249E+00	7.457E-02	3.601E-02
.647	.600	9.349E-02	4.900E-01	7.910E-01	7.971E+00	1.013E-01	6.085E-02
.676	.625	8.878E-02	3.785E-01	7.615E-01	1.499E-01	1.176E-01	8.036E-02
.705	.650	8.390E-02	1.536E-01	7.288E-01	1.323E+01	1.353E-01	7.974E-02
.735	.675	7.887E-02	5.590E-02	6.930E-01	1.482E+01	1.541E-01	5.803E-02
.764	.700	7.372E-02	5.917E-02	6.544E-01	9.606E+00	1.738E-01	4.442E-02
.794	.725	6.845E-02	7.505E-02	6.130E-01	6.437E+00	1.938E-01	3.953E-02
.824	.750	6.308E-02	8.230E-02	5.707E-01	4.596E+00	2.137E-01	3.835E-02
.864	.800	5.721E-02	7.524E-02	4.828E-01	2.707E+00	2.501E-01	3.875E-02
.945	.850	4.143E-02	5.592E-02	3.967E-01	1.777E+00	2.758E-01	3.835E-02
1.006	.900	3.108E-02	3.573E-02	3.184E-01	1.211E+00	2.861E-01	3.604E-02
1.068	.950	2.156E-02	1.999E-02	2.583E-01	8.296E-01	2.842E-01	3.265E-02
1.131	1.000	1.355E-02	9.075E-03	2.094E-01	5.656E-01	2.890E-01	2.805E-02
1.195	1.050	7.398E-03	2.906E-03	1.625E-01	3.739E-01	2.067E-01	2.251E-02
1.259	1.100	3.314E-03	8.266E-04	1.121E-01	2.337E-01	1.394E-01	1.665E-02
1.324	1.150	1.111E-03	1.470E-03	6.768E-02	1.357E-01	7.398E-02	1.101E-02
1.388	1.200	2.359E-04	2.955E-03	4.206E-02	6.934E-02	2.688E-02	6.235E-03
1.455	1.250	7.052E-05	4.006E-03	3.591E-02	3.406E-02	4.974E-03	3.005E-03
1.522	1.300	1.169E-04	4.292E-03	3.331E-02	2.178E-02	9.425E-04	1.392E-03
1.597	1.400	1.422E-04	2.887E-03	1.524E-02	2.292E-02	5.655E-03	1.195E-03
1.935	1.600	3.488E-06	5.930E-04	7.513E-04	6.366E-03	7.178E-04	7.524E-04
2.225	1.800	9.380E-06	1.986E-04	6.623E-05	2.719E-03	4.453E-05	2.755E-04
2.524	2.000	2.443E-06	1.365E-04	3.191E-07	1.029E-04	7.555E-06	3.211E-05

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	69.4	89.9	.1	95.8	-96.1	-177.0
.259	.250	76.6	89.9	.1	98.9	-93.0	-179.3
.312	.300	80.0	90.7	-0	104.6	-90.7	-173.8
.366	.350	81.4	91.1	-2	110.5	-89.2	-173.2
.421	.400	81.7	91.2	-3	116.1	-88.1	-176.7
.477	.450	81.3	91.7	-3	122.4	-86.9	179.5
.533	.500	80.5	93.1	-2	130.2	-85.4	175.8
.590	.550	79.5	96.9	-1	141.7	-83.6	173.0
.647	.600	78.4	100.7	-3	165.4	-81.5	175.5
.676	.625	78.0	121.6	-5	-169.9	-80.5	-175.3
.703	.650	77.6	131.8	-7	-136.8	-79.4	-152.4
.735	.675	77.1	112.1	-1.0	-108.2	-78.2	-153.4
.764	.710	76.6	85.3	-1.4	-90.2	-76.9	-159.2
.794	.725	76.1	77.6	-1.9	-79.3	-75.6	-164.5
.824	.750	75.6	74.6	-2.5	-72.3	-74.1	-169.5
.884	.800	74.7	71.9	-4.3	-64.2	-70.8	-177.1
.945	.850	73.9	69.7	-7.0	-60.3	-67.0	177.1
1.006	.900	73.2	67.0	-10.4	-58.2	-62.7	172.3
1.068	.950	73.3	63.4	-14.4	-56.4	-57.1	169.0
1.131	1.000	73.3	59.0	-18.1	-56.2	-50.5	165.0
1.195	1.050	73.1	39.1	-21.1	-57.9	-42.9	160.1
1.219	1.100	71.4	-10.3	-24.2	-62.2	-34.9	153.7
1.324	1.150	65.6	-71.1	-31.5	-70.0	-27.6	145.0
1.389	1.200	46.0	-93.6	-46.8	-82.4	-22.4	134.6
1.455	1.250	-14.4	-105.3	-63.2	-102.7	-28.4	119.5
1.522	1.300	-60.2	-114.8	-71.0	-131.5	-99.6	93.2
1.657	1.400	-92.0	-137.4	-75.6	-178.3	-146.1	22.4
1.836	1.600	141.3	122.2	-148.4	123.1	-137.6	-44.9
2.025	1.800	57.4	34.4	160.5	7.9	74.3	-173.7
2.524	2.000	-121.0	-109.1	-44.4	-145.1	44.8	70.2

REC = 42

HEADING = 120. DEG
RAOSHIP SPEED = 10. KNOTS
(MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.230	1.541E-01	5.487E-01	9.999E-01	4.355E-03	1.532E-03	2.406E-04
.250	.250	1.345E-01	6.233E-01	9.996E-01	1.200E-02	3.566E-03	8.456E-04
.300	.300	1.227E-01	5.946E-01	1.003E+00	3.198E-02	6.874E-03	1.634E-03
.350	.350	1.133E-01	7.069E-01	1.011E+00	7.793E-02	1.231E-02	3.793E-03
.400	.400	1.049E-01	6.645E-01	1.009E+00	1.812E-01	2.106E-02	7.464E-03
.450	.450	9.685E-02	6.032E-01	9.318E-01	4.321E-01	3.428E-02	1.273E-02
.500	.500	9.070E-02	5.397E-01	9.327E-01	1.141E+00	5.285E-02	2.407E-02
.550	.550	8.041E-02	4.589E-01	8.979E-01	3.529E+00	7.652E-02	3.407E-02
.600	.600	7.222E-02	2.392E-01	8.470E-01	8.209E+00	1.067E-01	4.926E-02
.650	.650	6.005E-02	1.327E-01	8.258E-01	7.523E+00	1.246E-01	4.317E-02
.700	.700	5.385E-02	1.032E-01	8.524E-01	5.505E+00	1.441E-01	3.585E-02
.750	.750	5.959E-02	1.019E-01	7.769E-01	3.966E+00	1.650E-01	3.208E-02
.800	.800	5.527E-02	1.020E-01	7.437E-01	2.937E+00	1.869E-01	3.077E-02
.850	.850	5.092E-02	9.815E-02	7.312E-01	2.267E+00	2.093E-01	3.059E-02
.900	.900	4.653E-02	9.070E-02	6.917E-01	1.899E+00	2.317E-01	3.078E-02
.950	.950	3.772E-02	7.006E-02	6.300E-01	1.233E+00	2.703E-01	3.088E-02
1.000	1.000	2.903E-02	4.886E-02	5.801E-01	8.688E-01	3.042E-01	2.992E-02
1.050	1.050	2.076E-02	3.082E-02	5.143E-01	6.266E-01	3.250E-01	2.829E-02
1.100	1.100	1.342E-02	1.691E-02	4.944E-01	4.562E-01	3.156E-01	2.579E-02
1.150	1.150	7.498E-03	7.511E-03	3.313E-01	3.281E-01	2.660E-01	2.233E-02
1.200	1.200	3.466E-03	2.368E-03	2.368E-01	2.271E-01	1.846E-01	1.810E-02
1.250	1.250	1.201E-03	6.907E-04	9.166E-02	1.351E-01	9.700E-02	1.283E-02
1.300	1.300	3.279E-04	8.391E-04	2.167E-02	7.373E-02	3.743E-02	8.229E-03
1.350	1.350	8.950E-05	1.695E-03	1.323E-02	3.655E-02	9.814E-03	4.721E-03
1.400	1.400	5.897E-05	2.502E-03	1.156E-02	1.735E-02	1.171E-03	2.380E-03
1.450	1.450	7.725E-05	2.744E-03	1.450E-02	1.025E-02	6.922E-04	1.078E-03
1.500	1.500	6.756E-05	1.707E-03	4.184E-03	1.082E-02	2.594E-04	6.794E-04
1.550	1.550	3.299E-06	3.348E-04	2.197E-04	2.767E-03	2.195E-04	3.696E-04
1.600	1.600	5.171E-06	7.755E-05	5.053E-05	1.144E-03	4.259E-06	1.188E-04
1.650	1.650	7.000E-07	3.896E-05	6.779E-06	7.511E-05	1.107E-05	1.355E-05

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
210	200	69.4	89.8	.1	96.9	-93.8	-170.6
225	250	75.6	89.5	.1	100.3	-91.0	-175.3
324	300	80.1	90.8	-.0	107.7	-88.3	-167.9
382	350	81.5	91.2	-.2	114.0	-86.8	-170.1
442	400	81.7	91.5	-.2	120.4	-85.8	-175.2
515	450	81.3	92.4	-.1	128.3	-84.6	-179.9
585	500	80.5	94.9	-.1	140.0	-82.8	176.4
629	550	79.6	102.3	-.2	152.0	-80.5	176.5
694	600	79.0	116.1	-.4	148.8	-78.1	-167.2
729	625	78.6	110.6	-.5	121.9	-76.8	-160.2
761	650	78.3	97.8	-.8	102.4	-75.3	-159.6
795	675	77.9	89.1	-1.1	-89.6	-73.7	-162.5
829	700	77.6	84.6	-1.4	-81.1	-71.9	-166.3
863	725	77.3	81.9	-1.8	-75.1	-70.0	-169.9
898	750	77.1	80.1	-2.3	-70.9	-67.8	-173.1
933	800	76.7	77.2	-3.3	-55.5	-63.2	-178.8
1043	850	77.2	75.2	-3.8	-61.4	-57.2	177.4
1113	900	79.4	72.5	-2.8	-58.2	-49.6	174.2
1187	950	79.8	67.6	1.1	-56.7	-40.3	170.5
1262	1000	81.0	58.8	8.3	-57.0	-29.5	165.9
1339	1050	80.3	39.8	16.8	-59.3	-18.2	160.0
1418	1100	74.9	-1.8	22.6	-62.6	-6.4	155.1
1497	1150	59.0	-58.7	9.4	-68.6	2.5	149.0
1573	1200	23.0	-84.4	-28.0	-79.4	5.7	140.2
1650	1250	-28.7	-97.7	-47.2	-98.7	-8.7	126.0
1743	1300	-59.0	-108.3	-50.1	-129.1	-95.3	101.7
1814	1400	-84.6	-130.8	-54.8	176.6	-114.2	29.2
2072	1500	154.7	127.5	-124.7	121.4	-151.6	-37.3
2551	1800	61.4	38.5	107.1	6.8	51.9	-171.2
3049	2000	-110.7	-118.7	-99.7	-140.2	38.5	70.6

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	89.8	59.4	.1	96.9	-93.8	-170.6	
.250	89.8	76.6	.1	100.3	-91.0	-175.3	
.300	90.8	80.1	-0	107.7	-88.3	-167.9	
.350	91.2	81.5	-2	114.0	-86.8	-170.1	
.400	91.5	81.7	-2	120.4	-85.8	-175.2	
.450	92.4	81.3	-1	128.3	-84.6	-179.9	
.500	94.9	80.5	-1	140.0	-82.8	-176.4	
.550	102.3	79.6	-2	162.0	-80.5	-176.5	
.600	116.1	78.0	-4	148.8	-78.1	-167.2	
.650	110.6	78.6	-5	121.9	-76.8	-160.2	
.700	97.8	73.3	-8	102.4	-75.3	-159.6	
.750	89.1	77.9	-1.1	89.6	-73.7	-162.5	
.800	84.6	77.6	-1.4	81.1	-71.9	-166.3	
.850	81.9	77.3	-1.8	75.1	-70.0	-169.9	
.900	80.1	77.1	-2.3	70.9	-67.8	-173.1	
.950	77.2	76.7	-3.3	65.5	-63.2	-178.8	
1.000	72.5	72.2	-3.8	61.4	-57.2	177.4	
1.050	67.6	73.4	-2.8	58.2	-49.6	174.2	
1.100	59.8	73.8	1.1	56.7	-40.3	170.5	
1.150	39.8	80.3	8.3	57.0	-29.5	165.9	
1.200	-1.8	74.9	16.8	59.3	-18.2	150.0	
1.250	-58.7	59.0	22.6	62.6	-8.4	155.1	
1.300	-84.4	23.0	9.4	58.6	2.5	149.0	
1.350	-97.7	-29.7	-28.0	79.4	5.7	140.2	
1.400	-108.3	-59.0	-47.2	98.7	8.7	126.0	
1.450	-130.8	-84.6	-50.1	129.1	-96.3	101.7	
1.500	127.5	154.7	-54.8	178.6	-114.2	29.2	
1.550	38.5	61.4	-124.7	121.4	-151.6	-37.3	
1.600	-118.7	-110.7	107.1	6.8	51.9	-171.2	
1.650			-99.7	-140.2	38.5	70.6	

REC = 43 HEADING = 120. DEG SHIP SPEED = 15. KNOTS

M	ME	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	.216	1.32E-01	5.97E-01	9.98E-01	4.45E-03	1.68E-03	8.84E-05
250	.275	1.13E-01	5.68E-01	9.96E-01	1.25E-02	3.76E-03	4.75E-04
300	.335	1.60E-01	6.40E-01	1.01E+00	3.47E-02	6.84E-03	8.00E-04
350	.398	9.69E-02	6.35E-01	1.02E+00	8.70E-02	1.20E-02	2.38E-03
400	.463	8.73E-02	5.86E-01	1.02E+00	2.09E-01	2.08E-02	5.47E-03
450	.530	7.92E-02	5.21E-01	1.00E+00	5.21E-01	3.44E-02	1.03E-02
500	.598	7.15E-02	4.39E-01	9.71E-01	1.56E+00	5.37E-02	1.78E-02
550	.669	6.40E-02	3.03E-01	9.34E-01	2.83E+00	7.86E-02	2.71E-02
600	.742	5.67E-02	1.69E-01	9.20E-01	2.80E+00	1.10E-01	2.72E-02
625	.779	5.37E-02	1.43E-01	9.12E-01	2.27E+00	1.28E-01	2.57E-02
650	.816	4.95E-02	1.29E-01	9.03E-01	1.61E+00	1.50E-01	2.48E-02
675	.854	4.52E-02	1.18E-01	8.94E-01	1.46E+00	1.71E-01	2.45E-02
700	.893	4.22E-02	1.08E-01	8.86E-01	1.20E+00	1.96E-01	2.48E-02
725	.932	3.84E-02	9.64E-02	8.77E-01	1.01E+00	2.19E-01	2.50E-02
750	.971	3.59E-02	8.43E-02	8.66E-01	8.51E-01	2.42E-01	2.51E-02
800	1.052	2.76E-02	6.13E-02	8.73E-01	6.23E-01	2.91E-01	2.47E-02
850	1.134	2.03E-02	4.16E-02	9.04E-01	4.67E-01	3.31E-01	2.41E-02
900	1.219	1.39E-02	2.55E-02	9.95E-01	3.59E-01	3.41E-01	2.29E-02
950	1.305	7.74E-03	1.35E-02	7.43E-01	2.75E-01	3.07E-01	2.11E-02
1000	1.394	3.52E-03	5.92E-03	4.36E-01	1.97E-01	2.16E-01	1.77E-02
1050	1.484	1.37E-03	2.02E-03	1.53E-01	1.27E-01	1.14E-01	1.36E-02
1100	1.576	4.78E-04	5.81E-04	2.97E-02	7.73E-02	4.71E-02	9.74E-03
1150	1.671	1.67E-04	5.78E-04	4.39E-03	4.30E-02	1.53E-02	6.43E-03
1200	1.767	8.13E-05	1.07E-03	7.42E-03	2.03E-02	3.26E-03	3.59E-03
1250	1.865	6.47E-05	1.49E-03	9.78E-03	8.53E-03	9.65E-04	1.65E-03
1300	1.965	6.20E-05	1.60E-03	6.88E-03	4.54E-03	1.26E-03	6.80E-04
1350	2.072	3.85E-05	9.94E-04	1.88E-03	5.53E-03	1.10E-03	3.90E-04
1400	2.172	4.93E-06	1.62E-04	8.15E-03	1.34E-03	1.37E-04	1.87E-04
1450	2.276	2.61E-06	4.14E-05	2.78E-03	4.49E-04	8.72E-05	5.91E-05
1500	2.374	1.50E-07	1.89E-05	8.52E-06	6.51E-05	1.11E-05	8.37E-06

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
216	200	59.5	89.8	.1	98.3	-91.5	-159.3
275	200	76.6	89.8	.1	102.4	-89.0	-170.3
333	200	80.2	91.0	-0	111.9	-85.7	-159.2
393	300	81.5	91.4	-0	119.4	-84.4	-156.2
463	400	81.7	91.9	-1	127.5	-83.6	-173.5
533	400	81.3	93.4	-0	139.2	-82.3	-178.7
593	500	80.7	97.6	-0	153.0	-80.2	-179.6
659	500	80.1	105.4	-1	163.8	-77.6	-172.0
742	600	79.6	102.3	-3	121.4	-74.7	-162.4
773	650	79.3	97.1	-4	106.7	-73.0	-162.3
816	650	79.1	92.8	-3	96.0	-71.1	-164.1
854	675	78.9	89.7	-6	83.3	-69.0	-166.6
893	700	78.8	87.4	-7	72.6	-66.7	-169.3
932	725	78.8	85.5	-7	64.3	-64.2	-171.9
971	750	78.8	83.9	-6	55.1	-61.5	-174.5
1052	800	79.8	82.1	.8	43.2	-54.7	-177.9
1134	800	81.8	79.8	4.9	34.6	-45.9	179.3
1219	900	84.2	76.1	13.3	21.8	-34.9	175.8
1305	900	85.4	70.1	26.4	17.0	-21.8	171.5
1394	1000	86.4	61.9	43.1	16.7	-7.0	167.4
1484	1000	80.3	47.9	58.6	16.3	7.0	163.8
1576	1100	66.1	11.4	61.5	17.0	159.2	159.2
1671	1100	43.7	-47.5	22.3	22.3	153.1	153.1
1767	1200	11.1	-77.7	-20.9	11.9	144.7	144.7
1865	1200	-21.3	-93.2	-27.1	-10.9	131.9	131.9
1965	1300	-45.6	-104.1	-30.4	-134.5	109.0	109.0
2172	1400	-80.1	-126.4	-47.6	171.0	-96.1	33.1
2604	1600	153.3	127.3	-133.9	111.2	-178.0	-35.0
3076	1800	42.4	41.8	88.2	-6.5	-35.4	-177.6
3574	2000	-144.5	-121.9	-101.4	-168.4	58.1	40.4

REC = 44

HEADING = 120. DEG
RAO (MOTION/WAVEHT)**2

SHIP SPEED = 20. KNOTS

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	1.261E-01	5.464E-01	9.979E-01	4.520E-03	1.801E-03	2.379E-05
.250	.250	1.054E-01	5.210E-01	9.991E-01	1.307E-02	3.947E-03	1.931E-04
.347	.300	9.209E-02	5.839E-01	1.019E+00	3.768E-02	6.693E-03	3.173E-04
.414	.350	8.199E-02	5.875E-01	1.035E+00	9.777E-02	1.173E-02	1.404E-03
.484	.400	7.335E-02	5.168E-01	1.042E+00	2.486E-01	2.646E-02	3.939E-03
.556	.450	6.563E-02	4.393E-01	1.023E+00	6.625E-01	3.447E-02	8.395E-03
.631	.500	5.842E-02	3.566E-01	9.938E-01	1.732E+00	5.463E-02	1.564E-02
.709	.550	5.173E-02	2.736E-01	9.995E-01	2.492E+00	7.977E-02	2.035E-02
.789	.600	4.532E-02	1.941E-01	1.015E+00	1.721E+00	1.130E-01	1.864E-02
.830	.625	4.219E-02	1.312E-01	1.023E+00	1.350E+00	1.327E-01	1.823E-02
.872	.650	3.907E-02	1.203E-01	1.033E+00	1.095E+00	1.544E-01	1.832E-02
.914	.675	3.597E-02	1.092E-01	1.047E+00	9.025E-01	1.735E-01	1.863E-02
.957	.700	3.288E-02	9.755E-02	1.063E+00	7.589E-01	2.015E-01	1.918E-02
1.001	.725	2.979E-02	8.564E-02	1.079E+00	6.445E-01	2.262E-01	1.925E-02
1.045	.750	2.664E-02	7.413E-02	1.124E+00	5.428E-01	2.552E-01	1.923E-02
1.136	.800	2.038E-02	5.330E-02	1.242E+00	4.059E-01	3.122E-01	1.934E-02
1.229	.850	1.423E-02	3.571E-02	1.335E+00	3.178E-01	3.522E-01	1.929E-02
1.325	.900	8.508E-03	2.159E-02	1.205E+00	2.536E-01	3.415E-01	1.875E-02
1.424	.950	3.935E-03	1.468E-02	7.512E-01	1.851E-01	2.542E-01	1.637E-02
1.525	1.000	1.558E-03	5.280E-03	2.795E-01	1.278E-01	1.385E-01	1.343E-02
1.629	1.050	6.444E-04	1.837E-03	6.285E-02	8.447E-02	6.057E-02	1.053E-02
1.735	1.100	2.913E-04	6.043E-04	7.483E-03	5.140E-02	2.165E-02	7.568E-03
1.844	1.150	1.514E-04	3.773E-04	4.781E-03	2.935E-02	5.763E-03	4.622E-03
1.956	1.200	8.880E-05	6.347E-04	6.663E-03	1.168E-02	1.658E-03	2.494E-03
2.070	1.250	6.325E-05	9.217E-04	5.781E-03	4.613E-03	1.210E-03	1.133E-03
2.187	1.300	4.586E-05	1.013E-03	3.328E-03	2.453E-03	1.018E-03	4.209E-04
2.429	1.400	2.107E-05	6.105E-04	8.255E-04	3.343E-03	3.366E-04	2.332E-04
2.944	1.600	4.164E-06	8.896E-05	3.387E-05	8.286E-04	1.147E-04	1.038E-04
3.501	1.800	1.795E-06	1.277E-05	1.954E-05	2.769E-04	1.451E-05	3.251E-05
4.099	2.000	1.201E-07	1.521E-05	7.643E-06	3.818E-05	1.220E-05	5.651E-06

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.210	69.5	89.8	.1	99.3	-88.9	-132.0
.283	.280	76.7	89.9	.1	104.2	-86.6	-150.8
.347	.300	80.2	91.0	-0	115.0	-82.8	-142.9
.414	.350	81.6	91.5	-0	122.8	-82.1	-151.4
.484	.400	81.8	92.3	-0	132.0	-81.5	-172.1
.555	.450	81.4	94.6	.1	146.6	-80.1	-177.9
.631	.500	80.8	100.5	-0	174.0	-77.6	-176.9
.703	.550	80.6	105.2	-0	139.4	-74.9	-163.0
.789	.600	80.2	97.0	.1	-105.0	-71.4	-159.8
.830	.625	80.1	93.3	.2	-94.6	-69.4	-161.7
.872	.650	80.1	90.6	.4	-87.1	-67.1	-164.3
.914	.675	80.1	88.6	.6	-81.7	-64.6	-167.0
.957	.700	80.2	86.9	1.1	-77.6	-61.8	-169.7
1.001	.725	80.4	85.6	1.9	-74.3	-58.8	-172.2
1.045	.750	81.3	85.1	3.3	-70.7	-55.0	-173.5
1.086	.800	83.6	83.5	8.6	-65.1	-46.0	-176.3
1.129	.850	86.8	83.7	19.0	-61.3	-35.2	-179.5
1.172	.900	90.2	76.2	35.2	-59.2	-19.5	-176.5
1.214	.950	91.5	71.5	57.3	-58.1	-1.6	-173.3
1.255	1.000	85.4	64.4	78.3	-57.8	14.6	-170.4
1.297	1.050	72.3	50.1	90.9	-58.6	22.8	-166.8
1.335	1.100	55.0	17.8	77.3	-61.2	30.8	-162.3
1.374	1.150	33.0	-36.2	11.8	-67.1	21.7	-156.7
1.414	1.200	8.0	-71.6	-7.3	-77.7	-7.8	-149.1
1.455	1.250	-18.0	-88.7	-14.2	-98.6	-46.6	-137.0
1.497	1.300	-42.5	-101.5	-22.8	-136.9	-65.1	-113.5
1.539	1.400	-81.7	-124.0	-48.8	167.8	-88.1	33.6
1.581	1.500	153.0	121.9	-124.4	105.8	174.8	-35.3
1.623	1.600	23.9	27.4	96.8	-1.3	-36.1	-176.9
1.665	1.700	154.3	-121.7	-99.7	-171.2	64.6	37.0

REC = 45

HEADING = 120. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVERT)**2

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	1.145E-01	4.984E-01	9.987E-01	4.596E-03	1.943E-03	1.596E-05
.291	.250	9.360E-02	4.873E-01	1.004E+00	1.377E-02	3.941E-03	3.767E-05
.359	.300	8.033E-02	5.267E-01	1.030E+00	4.052E-02	6.369E-03	1.345E-04
.430	.350	7.035E-02	5.034E-01	1.050E+00	1.085E-01	1.116E-02	7.971E-04
.505	.400	6.203E-02	4.522E-01	1.058E+00	2.859E-01	1.938E-02	2.885E-03
.583	.450	5.479E-02	3.828E-01	1.049E+00	7.362E-01	3.441E-02	6.986E-03
.664	.500	4.825E-02	2.734E-01	1.041E+00	1.500E+00	5.438E-02	1.231E-02
.749	.550	4.226E-02	1.751E-01	1.074E+00	1.338E+00	7.955E-02	1.365E-02
.836	.600	3.563E-02	1.363E-01	1.122E+00	9.333E-01	1.133E-01	1.370E-02
.881	.625	3.391E-02	1.235E-01	1.152E+00	7.680E-01	1.335E-01	1.402E-02
.927	.650	3.124E-02	1.112E-01	1.187E+00	6.439E-01	1.578E-01	1.444E-02
.974	.675	2.859E-02	9.890E-02	1.225E+00	5.499E-01	1.794E-01	1.486E-02
1.022	.700	2.592E-02	8.669E-02	1.283E+00	4.637E-01	2.064E-01	1.502E-02
1.071	.725	2.325E-02	7.523E-02	1.372E+00	3.940E-01	2.369E-01	1.514E-02
1.119	.750	2.058E-02	6.462E-02	1.481E+00	3.417E-01	2.682E-01	1.539E-02
1.220	.800	1.519E-02	4.583E-02	1.713E+00	2.689E-01	3.324E-01	1.579E-02
1.324	.850	9.734E-03	3.021E-02	1.739E+00	2.199E-01	3.631E-01	1.605E-02
1.432	.900	4.702E-03	1.789E-02	1.241E+00	1.653E-01	3.042E-01	1.465E-02
1.542	.950	1.870E-03	9.583E-03	5.135E-01	1.203E-01	1.760E-01	1.269E-02
1.655	1.000	3.267E-04	4.460E-03	1.362E-01	6.504E-02	8.018E-02	1.062E-02
1.774	1.050	4.397E-04	1.655E-03	2.030E-02	5.512E-02	2.974E-02	8.078E-03
1.894	1.100	2.387E-04	4.742E-04	4.509E-03	3.163E-02	9.035E-03	5.473E-03
2.019	1.150	1.355E-04	2.384E-04	5.208E-03	1.597E-02	2.642E-03	3.345E-03
2.145	1.200	7.422E-05	3.908E-04	4.554E-03	6.762E-03	1.121E-03	1.739E-03
2.275	1.250	4.588E-05	5.923E-04	2.935E-03	2.477E-03	6.175E-04	7.335E-04
2.403	1.300	3.157E-05	6.588E-04	1.612E-03	1.367E-03	5.870E-04	2.568E-04
2.536	1.350	1.995E-05	3.696E-04	3.144E-04	2.165E-03	1.750E-04	1.479E-04
2.686	1.400	2.425E-06	5.405E-05	1.360E-05	5.344E-04	8.779E-05	5.986E-05
2.827	1.450	1.107E-06	8.648E-06	1.396E-05	1.694E-04	1.287E-05	2.478E-05
4.624	2.000	1.325E-08	1.189E-05	4.912E-06	2.192E-05	7.855E-06	3.346E-06

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
226	200	69.6	89.7	1.1	100.5	-85.5	-59.1
229	250	76.8	90.1	1.1	107.5	-83.0	-113.2
233	300	80.3	91.1	1.0	118.3	-79.9	-109.0
237	350	81.6	91.7	1.1	127.3	-79.9	-154.8
239	400	81.8	92.9	1.2	139.4	-79.7	-170.3
243	450	81.5	95.2	2.2	159.4	-79.0	-175.4
247	500	81.2	102.3	2.2	163.7	-75.4	-168.5
249	550	81.0	106.8	2.5	-122.4	-72.4	-158.7
253	600	80.9	94.7	1.0	-98.0	-68.5	-150.0
257	625	80.9	92.5	1.4	-90.5	-66.2	-162.3
261	650	81.0	90.6	2.0	-85.0	-63.5	-164.9
264	675	81.2	89.0	2.8	-80.8	-60.7	-167.5
268	700	81.9	88.3	4.2	-76.9	-57.3	-169.4
272	725	82.9	87.9	6.3	-73.1	-53.3	-170.6
276	750	84.2	87.3	9.4	-69.9	-48.8	-171.9
280	800	87.8	85.2	19.7	-64.8	-37.3	-174.8
284	850	92.4	81.8	36.9	-51.6	-22.0	-178.5
288	900	96.1	78.6	62.1	-59.7	-1.6	-179.6
292	950	91.4	74.1	87.4	-58.3	17.7	-176.0
296	1.000	78.7	68.2	104.9	-57.8	30.9	-173.1
300	1.050	63.1	53.2	100.3	-56.0	36.0	-169.5
304	1.100	46.4	27.0	49.5	-52.1	31.3	-165.4
308	1.150	27.5	-26.9	12.5	-67.6	12.6	-162.2
312	1.200	4.7	-69.1	1.9	-73.9	-19.1	-152.5
316	1.250	-20.0	-89.0	-10.5	-102.7	-44.0	-139.9
320	1.300	-42.3	-124.0	-20.8	-144.1	-57.1	-116.1
324	1.400	-84.5	-100.9	-62.2	161.2	-85.1	-30.8
328	1.500	-159.9	117.1	-98.7	96.4	176.6	-37.5
332	1.600	23.8	17.1	87.8	-14.2	-42.8	-177.6
336	1.800	159.6	-128.7	-92.5	-168.6	54.7	39.0

REC = 45

HEADING = 135. DEG
RAO (MOTION/VAVENT)**2

SHIP SPEED = 5. KNOTS

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
237	200	3.293E-01	4.520E-01	9.988E-01	2.832E-03	2.755E-03	6.303E-04
262	200	3.002E-01	4.344E-01	9.888E-01	7.918E-03	6.596E-03	1.656E-03
317	300	2.782E-01	4.761E-01	9.827E-01	2.105E-02	1.334E-02	3.607E-03
373	300	2.578E-01	4.866E-01	9.732E-01	5.204E-02	2.439E-02	7.290E-03
433	400	2.371E-01	4.533E-01	9.472E-01	1.228E-01	4.133E-02	1.250E-02
438	500	2.152E-01	4.033E-01	8.975E-01	2.905E-01	6.533E-02	1.966E-02
546	500	1.918E-01	3.510E-01	8.188E-01	7.538E-01	9.631E-02	2.738E-02
605	500	1.667E-01	3.034E-01	7.108E-01	2.357E+00	1.318E-01	3.965E-02
667	500	1.407E-01	2.234E-01	5.915E-01	9.748E+00	1.705E-01	6.573E-02
697	635	1.277E-01	9.715E-02	5.439E-01	1.534E+01	1.916E-01	6.927E-02
723	600	1.145E-01	1.233E-02	4.835E-01	1.271E+01	2.120E-01	4.835E-02
760	605	1.016E-01	9.597E-03	4.321E-01	7.813E+00	2.308E-01	3.429E-02
791	700	8.877E-02	1.815E-02	3.760E-01	4.833E+00	2.468E-01	2.947E-02
823	725	7.638E-02	2.110E-02	3.218E-01	3.265E+00	2.588E-01	2.782E-02
854	750	6.452E-02	1.957E-02	2.788E-01	2.309E+00	2.656E-01	2.683E-02
893	800	4.307E-02	1.149E-02	1.835E-01	1.266E+00	2.592E-01	2.403E-02
984	850	2.563E-02	4.166E-03	1.109E-01	7.111E-01	2.235E-01	1.939E-02
1.050	900	1.277E-02	6.517E-04	8.014E-02	3.365E-01	1.703E-01	1.427E-02
1.117	950	4.847E-03	2.442E-04	6.054E-02	1.981E-01	1.044E-01	9.219E-03
1.186	1.000	1.104E-03	1.592E-03	5.070E-02	9.278E-02	4.246E-02	4.903E-03
1.255	1.050	8.804E-05	3.147E-03	4.968E-02	4.238E-02	7.233E-03	1.959E-03
1.324	1.100	1.873E-04	3.790E-03	5.281E-02	2.604E-02	1.135E-03	6.570E-04
1.396	1.150	3.347E-04	3.091E-03	4.830E-02	2.450E-02	1.065E-02	5.680E-04
1.467	1.200	2.520E-04	1.915E-03	2.944E-02	2.488E-02	1.674E-02	9.431E-04
1.540	1.250	9.747E-05	1.104E-03	1.039E-02	2.089E-02	1.357E-02	1.170E-03
1.614	1.300	1.213E-05	6.128E-04	1.744E-03	1.355E-02	6.658E-03	1.016E-03
1.764	1.400	3.953E-05	5.834E-04	1.408E-03	2.985E-03	5.332E-03	3.001E-04
1.800	1.500	3.352E-07	9.750E-05	1.754E-05	6.472E-04	2.432E-04	1.474E-04
2.075	1.600	4.043E-07	1.694E-05	1.556E-06	3.335E-04	3.603E-06	5.454E-05
2.401	1.800	5.377E-07	7.307E-06	1.034E-05	8.428E-05	5.251E-06	1.329E-05
2.742	2.000						

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
207	200	74.8	89.8	.1	97.8	-91.3	-176.9
262	250	79.6	89.8	.1	102.0	-91.3	-179.1
317	300	81.7	90.7	-.0	109.2	-89.4	-175.0
373	350	82.3	91.0	-.2	116.1	-88.0	-175.7
430	400	82.1	91.3	-.2	122.7	-86.6	-178.9
488	450	81.5	92.2	-.2	129.8	-85.1	177.6
546	500	80.7	94.6	-.3	138.4	-83.1	174.4
606	550	79.7	101.2	-.5	151.8	-80.8	172.3
667	600	78.8	123.8	-1.2	174.6	-78.2	-179.7
697	625	78.3	145.2	-1.7	141.2	-76.9	-167.0
728	650	77.9	139.9	-2.4	-108.2	-75.4	-159.4
761	675	77.5	77.4	-3.4	-87.6	-73.8	-163.1
791	700	77.1	63.2	-4.9	-76.2	-72.1	-169.7
823	725	76.7	63.4	-5.5	-69.5	-70.3	-175.5
854	750	76.3	62.9	-6.7	-65.4	-68.3	179.9
913	800	75.5	61.2	-15.2	-61.8	-63.8	172.6
984	850	74.7	57.6	-24.8	-62.0	-58.9	156.3
1050	900	74.2	42.5	-38.7	-63.2	-52.7	161.4
1117	950	72.9	-74.0	-55.0	-60.0	-45.3	155.1
1186	1000	66.9	-108.3	-71.9	-79.0	-37.7	145.6
1255	1050	23.3	-114.5	-87.8	-100.3	-34.8	128.4
1324	1100	-62.6	-124.0	-97.2	-133.0	-154.4	89.7
1396	1150	-76.1	-134.4	-98.2	-163.6	-168.3	32.6
1467	1200	-82.6	-148.3	-94.4	176.3	-180.3	1.0
1540	1250	-91.9	-171.4	-93.5	161.7	-151.7	-16.6
1614	1300	-118.8	153.1	-112.7	147.3	-143.4	-31.6
1764	1400	94.9	89.0	163.0	90.0	-144.0	-82.5
2075	1600	-99.0	-53.4	-104.4	-18.7	107.7	146.2
2401	1800	-153.9	168.6	89.5	162.9	-102.0	-25.2
2742	2000	18.8	-43.5	32.0	-7.5	-6.0	154.0

REC = 47

HEADING = 135. DEG
RAOSHIP SPEED = 10. KNOTS
(MOTION/AVEHT)**2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	2.854E-01	4.081E-01	9.964E-01	3.003E-03	2.905E-03	3.349E-04
.273	.250	2.519E-01	3.865E-01	9.897E-01	8.485E-03	6.861E-03	1.082E-03
.333	.300	2.263E-01	4.349E-01	9.916E-01	2.417E-02	1.344E-02	2.279E-03
.395	.350	2.038E-01	4.255E-01	9.869E-01	6.228E-02	2.444E-02	5.035E-03
.459	.400	1.825E-01	3.861E-01	9.648E-01	1.563E-01	4.176E-02	9.181E-03
.525	.450	1.619E-01	3.322E-01	9.175E-01	4.173E-01	6.686E-02	1.473E-02
.593	.500	1.377E-01	2.887E-01	8.402E-01	1.321E+00	9.986E-02	2.295E-02
.662	.550	1.199E-01	2.075E-01	7.428E-01	5.069E+00	1.344E-01	3.873E-02
.734	.600	9.45E-02	3.755E-02	6.703E-01	6.216E+00	1.852E-01	3.223E-02
.770	.625	8.235E-02	3.163E-02	6.268E-01	4.106E+00	2.102E-01	2.531E-02
.807	.650	7.043E-02	3.532E-02	5.817E-01	2.732E+00	2.345E-01	2.265E-02
.844	.675	6.071E-02	3.551E-02	5.359E-01	1.924E+00	2.543E-01	2.175E-02
.882	.700	6.029E-02	3.225E-02	4.905E-01	1.422E+00	2.722E-01	2.135E-02
.920	.725	5.127E-02	2.788E-02	4.459E-01	1.086E+00	2.944E-01	2.085E-02
.959	.750	4.273E-02	2.130E-02	4.022E-01	8.459E-01	2.977E-01	2.005E-02
1.033	.800	2.741E-02	1.122E-02	3.268E-01	5.183E-01	2.960E-01	1.752E-02
1.113	.850	1.525E-02	4.125E-03	2.650E-01	3.177E-01	2.625E-01	1.443E-02
1.201	.900	6.801E-03	7.289E-04	1.869E-01	1.885E-01	1.970E-01	1.083E-02
1.285	.950	2.110E-03	1.666E-04	9.647E-02	1.036E-01	1.066E-01	7.115E-03
1.371	1.000	3.263E-04	1.103E-03	3.479E-02	4.972E-02	3.634E-02	3.831E-03
1.459	1.050	3.044E-05	1.918E-03	2.778E-02	2.039E-02	3.647E-03	1.554E-03
1.549	1.100	1.615E-04	2.165E-03	3.278E-02	1.103E-02	8.288E-04	5.297E-04
1.641	1.150	1.222E-04	1.836E-03	2.329E-02	1.035E-02	4.980E-03	3.721E-04
1.734	1.200	9.494E-05	1.195E-03	1.002E-02	1.133E-03	6.299E-03	5.745E-04
1.830	1.250	3.611E-05	6.071E-04	2.562E-03	9.613E-03	4.411E-03	6.767E-04
1.927	1.300	5.733E-06	3.273E-04	5.944E-04	6.039E-03	1.935E-03	5.554E-04
2.027	1.400	1.576E-05	2.522E-04	4.213E-04	1.122E-03	1.738E-03	1.305E-04
2.551	1.600	3.448E-07	3.505E-05	1.222E-05	1.863E-04	7.777E-06	5.195E-05
3.003	1.800	1.092E-06	7.998E-06	1.253E-06	7.046E-05	1.033E-05	1.431E-05
3.484	2.000	7.443E-07	2.710E-06	1.452E-06	1.420E-05	1.543E-05	4.411E-06

PHASE (MOTION-AVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	74.8	89.8	.1	99.1	-92.2	-170.9
.273	.250	79.6	89.8	.2	103.5	-89.9	-175.3
.333	.300	81.7	90.9	.1	112.5	-87.4	-170.0
.395	.350	82.3	91.2	.2	113.7	-85.9	-173.1
.459	.400	82.1	91.7	.2	127.0	-84.5	-177.8
.525	.450	81.5	93.3	.2	136.1	-82.6	178.0
.593	.500	80.8	98.3	.3	150.6	-80.1	175.1
.662	.550	80.0	115.0	.8	-173.9	-77.1	-177.9
.734	.600	79.5	113.7	.1	-110.7	-73.8	-160.3
.807	.650	79.0	90.7	.2	-90.9	-71.9	-162.6
.844	.675	78.8	81.0	.3	-79.3	-69.8	-167.7
.882	.700	78.7	77.4	.4	-72.1	-67.5	-172.5
.910	.725	78.7	75.5	.5	-67.5	-65.0	-176.6
.959	.750	78.7	73.2	.6	-64.6	-62.2	179.8
1.033	.800	79.4	73.0	.8	-62.8	-59.3	176.6
1.113	.850	81.0	71.0	.5	-60.0	-52.1	171.8
1.201	.900	82.7	68.2	.7	-58.8	-42.9	167.7
1.285	.950	82.7	50.6	.3	-60.5	-31.5	162.2
1.371	1.000	73.8	-58.5	.9	-65.9	-18.6	154.6
1.459	1.050	-7.0	-98.4	.4	-77.0	-5.4	144.1
1.543	1.100	-64.2	-108.4	.9	-97.0	4.3	130.0
1.641	1.150	-80.3	-116.6	.3	-129.8	-10.8	99.3
1.734	1.200	-91.6	-126.4	.9	-161.6	-141.4	47.2
1.830	1.250	-101.9	-140.6	.2	177.8	-133.5	12.0
1.927	1.300	-123.4	-162.6	.7	162.9	-123.8	-7.4
2.127	1.400	96.7	164.0	.3	148.9	-116.8	-22.4
2.331	1.500	-4.3	97.8	.4	92.1	-147.5	-70.9
3.003	1.600	-166.3	-56.0	.4	-17.1	38.0	152.2
3.184	2.000	18.7	-52.7	.5	171.1	2.2	-25.7
							149.6

REC = 48

HEADING = 135. DEG SHIP SPEED = 15. KNOTS
 DEG (MOTION/AVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.222	.200	2.485E-01	3.645E-01	9.961E-01	3.106E-03	3.005E-03	1.385E-04
.285	.250	2.135E-01	3.485E-01	9.925E-01	9.151E-03	7.085E-03	5.635E-04
.350	.300	1.835E-01	3.891E-01	1.003E+00	2.751E-02	1.335E-02	1.251E-03
.418	.350	1.635E-01	3.694E-01	1.003E+00	7.403E-02	2.485E-02	3.345E-03
.489	.400	1.435E-01	3.265E-01	9.849E-01	1.984E-01	4.282E-02	5.785E-03
.563	.450	1.240E-01	2.765E-01	9.416E-01	5.789E-01	6.835E-02	1.185E-02
.639	.500	1.035E-01	2.025E-01	8.701E-01	1.780E+00	1.035E-01	1.965E-02
.718	.550	8.835E-02	8.665E-02	8.282E-01	2.696E+00	1.495E-01	2.245E-02
.801	.600	7.255E-02	5.401E-02	7.801E-01	1.609E+00	1.905E-01	1.815E-02
.882	.625	5.445E-02	4.935E-02	7.552E-01	1.209E+00	2.235E-01	1.745E-02
.965	.650	5.635E-02	4.395E-02	7.300E-01	9.349E-01	2.505E-01	1.715E-02
.023	.675	4.965E-02	3.765E-02	7.042E-01	7.409E-01	2.755E-01	1.695E-02
.073	.700	4.237E-02	3.095E-02	6.764E-01	5.976E-01	2.982E-01	1.655E-02
.1018	.725	3.535E-02	2.445E-02	6.552E-01	4.811E-01	3.135E-01	1.595E-02
.1053	.750	2.885E-02	1.864E-02	6.452E-01	3.936E-01	3.302E-01	1.524E-02
.1155	.800	1.743E-02	9.275E-03	6.133E-01	2.596E-01	3.341E-01	1.359E-02
.1352	.850	8.625E-03	3.302E-03	4.951E-01	1.724E-01	2.865E-01	1.135E-02
.1351	.900	3.135E-03	5.225E-04	2.590E-01	1.089E-01	1.875E-01	8.602E-03
.1452	.950	6.765E-04	1.011E-04	5.574E-02	5.538E-02	7.245E-02	5.325E-03
.1537	1.000	8.775E-05	5.855E-05	6.059E-03	2.488E-02	1.641E-02	2.835E-03
.1654	1.050	3.215E-05	1.165E-05	1.302E-02	1.025E-02	9.885E-04	1.235E-03
.1774	1.100	6.235E-05	1.325E-05	1.455E-02	5.244E-03	8.835E-04	4.115E-04
.1886	1.150	7.065E-05	1.065E-05	8.263E-03	5.012E-03	2.941E-03	2.225E-04
.2002	1.200	5.065E-05	6.602E-06	3.207E-03	5.408E-03	3.045E-03	3.085E-04
.2123	1.250	2.065E-05	3.305E-06	9.086E-04	4.599E-03	1.602E-03	3.675E-04
.2241	1.300	4.045E-06	1.605E-06	2.822E-04	2.815E-03	4.665E-04	2.945E-04
.2491	1.400	9.155E-06	1.135E-06	4.151E-05	4.838E-04	4.472E-05	5.625E-05
.3026	1.600	7.954E-07	1.385E-06	4.145E-06	5.676E-05	1.835E-05	2.125E-05
.3504	1.800	1.132E-06	2.105E-06	2.228E-06	3.250E-05	1.443E-05	6.715E-06
.4.226	2.000	5.209E-07	1.444E-06	3.239E-06	1.211E-05	1.159E-05	2.135E-06

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.222	.200	74.8	89.8	.1	100.8	-90.8	-161.7
.285	.250	79.7	89.9	.1	106.6	-88.0	-168.9
.350	.300	81.8	91.1	-.1	117.3	-95.2	-163.6
.413	.350	82.3	91.5	-.1	125.5	-83.9	-170.5
.493	.400	82.1	92.5	-.1	135.0	-82.3	-176.6
.563	.450	81.6	93.5	-.2	149.8	-80.0	-179.2
.639	.500	81.0	104.2	-.5	179.3	-75.9	-178.7
.713	.550	80.6	108.3	-.9	-127.3	-73.4	-164.2
.800	.600	80.4	92.5	-1.6	-92.3	-69.1	-165.2
.842	.625	80.4	87.8	-2.1	-83.0	-66.6	-168.6
.885	.650	80.4	84.9	-2.5	-76.8	-63.8	-172.1
.923	.675	80.6	82.9	-2.8	-72.5	-60.7	-175.5
.972	.700	80.8	81.3	-2.8	-69.6	-57.4	-178.6
1.013	.725	81.4	80.3	-2.6	-66.9	-53.5	-179.1
1.053	.750	82.5	79.5	-1.6	-64.3	-49.9	-177.5
1.153	.800	85.3	76.5	3.7	-61.1	-37.7	-173.7
1.222	.850	88.6	70.1	15.1	-60.5	-23.6	-168.8
1.311	.900	90.4	51.2	30.6	-62.9	-7.4	-162.2
1.452	.950	85.0	-44.7	43.7	-67.3	11.2	-157.0
1.557	1.000	55.9	-89.4	-1.7	-76.8	28.1	-149.2
1.664	1.050	-22.4	-101.0	-44.5	-96.1	35.8	-135.5
1.774	1.100	-59.1	-110.6	-41.7	-131.1	-117.3	-107.6
1.885	1.150	-73.5	-121.1	-39.0	-159.8	-112.0	56.7
2.002	1.200	-83.6	-134.7	-42.7	173.4	-106.9	18.9
2.120	1.250	-97.7	-155.8	-58.8	153.9	-105.2	-1.4
2.241	1.300	-137.5	-170.6	-87.8	144.4	-112.3	-16.9
2.391	1.400	-110.7	99.5	-152.0	84.2	171.6	-67.2
2.526	1.500	-2.7	-62.8	66.3	-37.1	-3.2	146.9
2.664	1.600	-165.1	124.0	-47.1	141.2	178.2	-32.8
4.226	2.000	11.6	-74.4	160.7	-66.5	-5.2	134.2

REC = 49

HEADING = 135. DEG
RAO (MOTION/WAVEHT)**2

SHIP SPEED = 20. KNOTS

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	2.174E-01	3.260E-01	9.969E-01	3.213E-03	3.245E-03	3.868E-05
.236	.250	1.815E-01	3.229E-01	9.993E-01	1.006E-02	7.100E-03	1.751E-04
.267	.300	1.542E-01	3.436E-01	1.015E+00	3.117E-02	1.306E-02	6.154E-04
.441	.350	1.325E-01	3.182E-01	1.021E+00	8.811E-02	2.388E-02	2.175E-03
.519	.400	1.137E-01	2.757E-01	1.008E+00	2.938E-01	4.203E-02	5.103E-03
.600	.450	9.693E-02	2.213E-01	9.707E-01	7.818E-01	6.922E-02	9.910E-03
.686	.500	8.155E-02	1.283E-01	9.405E-01	1.686E+00	1.047E-01	1.504E-02
.775	.550	6.745E-02	6.936E-02	9.333E-01	1.205E+00	1.507E-01	1.361E-02
.867	.600	5.425E-02	5.453E-02	9.322E-01	7.604E-01	2.057E-01	1.298E-02
.915	.625	4.795E-02	4.787E-02	9.341E-01	6.046E-01	2.344E-01	1.291E-02
.964	.650	4.184E-02	4.078E-02	9.253E-01	4.909E-01	2.620E-01	1.290E-02
1.013	.675	3.595E-02	3.367E-02	9.447E-01	3.895E-01	2.897E-01	1.272E-02
1.064	.700	3.015E-02	2.705E-02	9.788E-01	3.222E-01	3.191E-01	1.246E-02
1.115	.725	2.474E-02	2.108E-02	1.019E+00	2.606E-01	3.445E-01	1.217E-02
1.168	.750	1.965E-02	1.583E-02	1.050E+00	2.202E-01	3.611E-01	1.181E-02
1.223	.800	1.076E-02	7.624E-03	9.789E-01	1.610E-01	3.510E-01	1.076E-02
1.276	.850	4.255E-03	2.658E-03	5.975E-01	1.078E-01	2.555E-01	8.850E-03
1.331	.900	1.135E-03	5.516E-04	1.647E-01	6.222E-02	1.174E-01	6.266E-03
1.384	.950	2.905E-04	9.108E-05	1.749E-02	3.249E-02	3.545E-02	4.013E-03
1.442	1.000	6.531E-05	3.737E-04	2.727E-03	1.457E-02	5.825E-03	2.166E-03
1.488	1.050	4.225E-05	6.826E-04	8.795E-03	5.305E-03	2.232E-04	8.598E-04
1.538	1.100	4.225E-05	7.710E-04	7.282E-03	2.565E-03	1.262E-03	2.667E-04
1.590	1.150	4.537E-05	6.363E-04	3.554E-03	2.684E-03	1.683E-03	1.269E-04
1.643	1.200	2.776E-05	3.957E-04	1.283E-03	2.935E-03	9.989E-04	1.740E-04
1.698	1.250	1.095E-05	1.876E-04	4.155E-04	2.463E-03	3.765E-04	2.084E-04
1.754	1.300	3.465E-06	7.879E-05	1.226E-04	1.450E-03	1.195E-04	1.584E-04
1.811	1.350	6.903E-06	5.574E-05	1.796E-05	2.600E-04	4.732E-05	2.596E-05
1.869	1.400	7.905E-07	9.299E-06	7.590E-07	1.822E-05	2.165E-05	5.940E-06
1.928	1.450	1.125E-06	2.517E-06	4.425E-06	2.333E-05	1.625E-05	4.167E-06
1.988	1.500	3.795E-07	1.807E-06	2.087E-06	5.884E-06	8.126E-06	9.235E-07

PHASE (MOTION-WAVEHT)

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
233	200	74.9	89.7	.1	102.6	-38.3	-136.8
295	250	79.7	90.2	.1	110.6	-85.5	-151.3
357	300	81.8	91.2	-0	121.6	-83.0	-154.3
411	350	82.3	91.8	-1	130.6	-81.8	-167.7
519	400	82.2	93.5	-1	142.9	-80.2	-175.6
600	450	81.7	98.4	-2	165.3	-77.4	-178.3
666	500	81.4	107.2	-4	148.2	-74.0	-167.3
725	550	81.3	98.4	-6	-134.4	-69.7	-151.5
807	600	81.5	89.8	-7	-83.3	-64.4	-166.9
915	625	81.7	87.4	-5	-77.5	-61.3	-170.2
964	650	82.1	85.6	-5	-73.5	-57.8	-173.4
1013	675	82.8	84.6	1.0	-70.1	-53.9	-175.9
1064	700	84.0	84.1	2.9	-38.6	-49.1	-177.5
1115	725	85.5	83.2	6.0	-63.8	-43.6	-179.1
1163	750	87.4	81.9	10.8	-61.7	-37.3	-179.1
1215	800	91.9	77.7	26.5	-59.5	-21.8	-174.7
1336	850	95.5	70.8	50.0	-58.5	-2.1	-169.8
1501	900	91.2	56.2	76.4	-61.0	19.1	-156.0
1600	950	72.9	20.4	87.9	-65.0	35.0	-150.8
1722	1000	35.4	-79.0	-16.2	-74.5	42.8	-153.0
1888	1050	-14.1	-95.7	-25.5	-93.8	-20.6	-140.5
1998	1100	-47.5	-106.1	-25.3	-133.3	-39.5	-114.7
2132	1150	-68.1	-117.2	-29.9	-163.2	-93.5	-62.3
2263	1200	-85.9	-131.1	-38.7	-163.3	-96.0	20.9
2440	1250	-109.0	-151.2	-55.3	-154.9	-104.2	.5
2554	1300	-157.0	172.1	-92.5	143.1	-128.2	-15.6
2855	1400	115.1	94.8	-167.8	74.9	166.3	-71.8
3501	1500	5.7	-68.9	119.4	-54.0	1.4	141.6
4266	1600	-165.8	123.4	-29.5	121.7	176.4	-39.5
4988	2000	10.5	-63.7	158.7	-101.5	-6.4	101.7

REC = 50 HEADING = 135. DEG SHIP SPEED = 25. KNOTS
 RAO (MOTION/NAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.237	.200	1.907E-01	2.308E-01	9.993E-01	3.313E-03	3.272E-03	2.159E-05
.303	.200	1.544E-01	2.330E-01	1.009E+00	1.095E-02	6.931E-03	5.312E-05
.384	.300	1.290E-01	3.006E-01	1.003E+00	3.519E-02	1.290E-02	2.829E-04
.464	.300	1.086E-01	2.731E-01	1.011E+00	1.052E-01	2.319E-02	1.413E-03
.549	.400	9.164E-02	2.322E-01	1.005E+00	3.266E-01	4.177E-02	3.963E-03
.633	.400	7.692E-02	1.577E-01	1.005E+00	9.606E-01	6.971E-02	8.295E-03
.732	.500	6.394E-02	8.845E-02	1.027E+00	1.182E+00	1.053E-01	1.034E-02
.831	.500	5.221E-02	6.320E-02	1.004E+00	7.165E-01	1.525E-01	9.342E-03
.934	.600	4.142E-02	4.961E-02	1.131E+00	4.474E-01	2.092E-01	9.605E-03
.983	.600	3.632E-02	4.249E-02	1.153E+00	3.668E-01	2.388E-01	9.753E-03
1.042	.600	3.132E-02	3.541E-02	1.224E+00	2.954E-01	2.734E-01	9.695E-03
1.099	.700	2.652E-02	2.889E-02	1.320E+00	2.435E-01	3.091E-01	9.671E-03
1.155	.700	2.191E-02	2.299E-02	1.427E+00	2.051E-01	3.451E-01	9.647E-03
1.213	.700	1.753E-02	1.775E-02	1.549E+00	1.753E-01	3.743E-01	9.578E-03
1.272	.700	1.330E-02	1.318E-02	1.547E+00	1.512E-01	3.865E-01	9.430E-03
1.334	.800	9.44E-03	6.003E-03	1.163E+00	1.071E-01	3.559E-01	8.420E-03
1.394	.800	1.774E-03	2.287E-03	4.233E-01	6.728E-02	1.798E-01	8.503E-03
1.452	.900	5.208E-04	5.367E-04	6.735E-02	3.986E-02	6.368E-02	4.805E-03
1.512	.900	1.825E-04	8.934E-05	2.059E-03	2.026E-02	1.462E-02	2.980E-03
1.578	1.000	7.369E-05	2.047E-04	4.393E-03	8.373E-03	1.625E-03	1.498E-03
1.644	1.000	4.346E-05	4.094E-04	5.885E-03	2.979E-03	4.569E-04	5.931E-04
1.710	1.100	2.694E-05	4.097E-04	1.569E-03	1.464E-03	8.020E-04	1.635E-04
1.776	1.100	1.630E-05	2.345E-04	5.103E-04	1.798E-03	6.712E-04	7.164E-05
1.842	1.200	2.994E-06	9.766E-05	1.520E-04	1.478E-03	3.757E-04	1.042E-04
1.908	1.300	2.695E-06	4.073E-05	7.420E-05	8.515E-04	5.322E-05	8.940E-05
1.974	1.400	2.994E-06	3.254E-05	1.442E-07	1.754E-04	3.479E-05	1.404E-05
2.040	1.500	5.881E-07	7.349E-06	3.535E-07	1.815E-05	1.875E-05	5.876E-06
2.106	1.600	6.881E-07	1.013E-06	2.535E-06	2.071E-05	1.018E-05	3.064E-06
2.172	1.700	2.222E-07	8.333E-07	1.116E-06	9.452E-06	4.767E-06	1.736E-06

PHASE (MOTION-WAVEY)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.237	.200	74.9	89.7	.1	104.2	-85.4	-76.5
.308	.250	79.8	90.5	.1	114.4	-82.6	-100.6
.384	.300	81.0	91.4	.0	125.5	-81.8	-139.6
.464	.350	82.4	92.2	.1	135.7	-80.0	-164.8
.549	.400	82.3	94.8	.1	151.5	-78.2	-174.5
.639	.450	81.9	101.7	.1	-176.0	-74.9	-171.6
.732	.500	82.0	105.6	.0	-122.7	-71.2	-159.4
.831	.550	82.1	94.0	.3	-91.5	-66.3	-161.0
.934	.600	82.7	89.1	1.4	-77.4	-60.1	-167.6
.988	.625	83.2	87.3	2.5	-73.4	-56.5	-170.8
1.042	.650	84.3	87.0	4.5	-69.2	-52.0	-172.6
1.093	.675	85.9	86.5	7.6	-65.6	-46.8	-174.1
1.153	.700	87.8	85.7	12.4	-62.7	-40.7	-178.8
1.213	.725	90.2	84.5	19.3	-60.4	-33.6	-177.6
1.272	.750	93.0	82.8	28.7	-58.9	-25.2	-173.7
1.334	.775	93.9	78.5	55.4	-57.4	-3.5	-176.1
1.394	.800	97.1	72.6	87.6	-57.0	21.9	175.0
1.451	.850	82.1	56.1	111.3	-53.2	38.7	163.0
1.512	.900	53.7	-3.2	84.8	-63.1	46.4	163.8
1.573	.950	27.2	-71.9	-5.5	-73.6	33.7	156.8
1.623	1.000	-11.8	-91.3	-13.7	-95.4	-48.8	148.1
2.073	1.050	-46.0	-104.6	-18.8	-136.6	-76.6	118.7
2.223	1.100	-69.1	-115.8	-26.2	-173.5	-93.2	63.0
2.378	1.150	-88.9	-123.9	-42.1	165.7	-91.0	19.9
2.536	1.200	-116.8	-152.4	-75.2	151.3	-103.0	-1.0
2.700	1.250	-169.5	-168.2	-101.0	135.2	-148.5	-17.2
2.863	1.300	-116.4	89.8	-91.4	67.5	-178.8	-77.6
3.013	1.400	15.1	-77.8	112.3	-70.4	.9	133.0
3.177	1.500	-151.5	136.0	-26.1	102.7	176.8	-55.9
4.803	1.800	7.8	-77.3	151.8	-106.5	-10.5	91.1

REC = 51 HEADING = 150. DEG SHIP SPEED = 5. KNOTS
PAO (MOTION/RAVEHT)**2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.209	.200	4.814E-01	2.208E-01	9.939E-01	1.465E-03	4.067E-03	4.681E-04
.264	.200	4.386E-01	2.104E-01	9.844E-01	4.085E-03	9.758E-03	1.205E-03
.320	.300	4.019E-01	2.305E-01	9.682E-01	1.126E-02	1.975E-02	2.666E-03
.378	.300	3.659E-01	2.302E-01	9.441E-01	2.879E-02	3.594E-02	5.271E-03
.436	.400	3.285E-01	2.086E-01	8.907E-01	7.025E-02	6.028E-02	8.752E-03
.495	.400	2.886E-01	1.797E-01	8.248E-01	1.758E-01	9.330E-02	1.289E-02
.557	.500	2.462E-01	1.512E-01	7.118E-01	4.857E-01	1.331E-01	1.704E-02
.619	.500	2.019E-01	1.287E-01	5.742E-01	1.719E+00	1.734E-01	2.538E-02
.682	.600	1.580E-01	8.526E-02	4.441E-01	8.794E+00	2.130E-01	4.255E-02
.714	.600	1.356E-01	1.683E-02	3.747E-01	1.037E+01	2.306E-01	3.264E-02
.779	.600	9.645E-02	3.122E-03	2.580E-01	3.141E+00	2.524E-01	1.401E-02
.811	.700	7.822E-02	4.577E-03	2.047E-01	1.863E+00	2.537E-01	1.271E-02
.844	.700	6.163E-02	4.049E-03	1.584E-01	1.194E+00	2.472E-01	1.197E-02
.873	.750	4.691E-02	2.760E-03	1.109E-01	8.008E-01	2.324E-01	1.087E-02
.946	.800	2.374E-02	5.464E-04	6.740E-02	3.753E-01	1.799E-01	3.110E-03
1.014	.800	9.171E-03	6.259E-05	4.347E-02	1.692E-01	1.105E-01	5.041E-03
1.084	.900	2.062E-03	7.895E-04	3.847E-02	7.013E-02	4.655E-02	2.550E-03
1.155	.900	9.302E-05	1.560E-05	4.243E-02	2.823E-02	6.717E-03	8.848E-04
1.227	1.000	3.094E-04	1.994E-05	4.807E-02	1.629E-02	1.968E-03	2.079E-04
1.301	1.050	5.924E-04	1.612E-05	4.733E-02	1.593E-02	1.749E-02	2.827E-04
1.375	1.100	3.841E-04	8.988E-06	3.944E-02	1.553E-02	2.602E-02	5.724E-04
1.451	1.150	8.457E-05	4.042E-06	9.368E-03	1.122E-02	1.814E-02	6.159E-04
1.528	1.200	1.024E-06	2.801E-07	1.044E-03	5.681E-03	6.157E-03	4.260E-04
1.605	1.200	5.270E-05	3.064E-04	2.000E-03	2.221E-03	5.379E-04	2.058E-04
1.684	1.300	8.654E-05	2.732E-04	2.343E-03	1.498E-03	4.387E-04	1.255E-04
1.842	1.400	1.146E-05	6.662E-05	1.148E-03	1.172E-03	6.599E-04	1.462E-04
2.182	1.500	4.460E-06	1.935E-05	5.588E-05	3.576E-04	4.199E-05	3.955E-05
2.537	1.800	3.126E-07	5.758E-06	3.943E-06	6.113E-05	2.193E-06	9.016E-06
2.903	2.000	1.124E-08	2.771E-06	1.999E-06	4.074E-06	1.750E-06	1.570E-06

PHASE (MOTION-AVERT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.209	.200	77.1	80.8	.1	99.3	-92.8	-177.0
.264	.250	81.0	89.8	.1	104.1	-93.5	-179.2
.320	.300	82.5	95.7	.0	112.1	-88.6	-175.8
.378	.350	82.8	91.0	.2	119.6	-87.1	-177.1
.435	.400	82.4	91.4	.2	126.4	-85.6	-179.7
.495	.450	81.7	92.6	.3	133.3	-83.7	-176.2
.557	.500	80.9	95.9	.4	141.5	-81.4	-172.9
.613	.550	80.0	105.5	.0	155.1	-78.6	-170.9
.682	.600	79.2	145.0	.2	161.3	-75.6	-175.3
.714	.625	78.0	172.7	.5	169.1	-73.9	-159.7
.745	.650	78.4	22.0	.1	189.6	-72.1	-160.7
.773	.675	78.0	37.9	.2	195.2	-70.2	-169.8
.811	.700	77.7	45.5	.1	208.0	-68.0	-177.4
.843	.725	77.3	48.3	.0	214.0	-65.7	-177.0
.873	.750	77.0	48.7	.3	226.6	-63.2	-172.5
.945	.800	75.2	41.7	.8	234.8	-57.7	-164.9
1.014	.850	75.1	79.1	.7	257.7	-51.2	-157.9
1.084	.900	71.8	111.6	.4	278.3	-42.7	-149.7
1.155	.950	36.2	119.2	.5	299.9	-32.9	-134.0
1.227	1.000	-72.5	127.1	.7	313.7	-16.5	88.7
1.301	1.050	-79.0	138.6	.0	366.5	174.0	16.9
1.375	1.100	-79.9	150.7	.4	372.5	-172.0	-12.1
1.451	1.150	-82.7	173.1	.2	387.0	-157.1	-28.1
1.527	1.200	137.2	195.5	.3	398.8	-141.6	-45.2
1.603	1.250	99.1	94.4	.5	406.5	-111.6	-73.4
1.684	1.300	91.8	68.7	.2	57.0	22.8	-121.7
1.745	1.350	75.6	5.8	.5	1.8	72.6	157.5
1.822	1.400	-121.3	-171.9	.7	178.5	-113.1	-7.5
1.897	1.450	32.7	-24.4	.5	205.8	34.1	158.3
1.973	1.500	64.1	84.1	.1	211.1	-145.3	-63.1

REC = 52

HEADINGS = 150. DEG
RAO (NOIION/NAVENT)**2
SHIP SPEED = 10. KNOTS

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
213	200	4.052E-01	1.951E-01	9.938E-01	1.544E-03	4.253E-03	2.524E-04
273	200	3.553E-01	1.826E-01	9.829E-01	4.453E-03	1.010E-02	7.803E-04
341	300	3.130E-01	2.060E-01	9.795E-01	1.341E-02	1.991E-02	1.712E-03
405	300	2.764E-01	1.962E-01	9.647E-01	3.602E-02	3.632E-02	3.636E-03
473	400	2.403E-01	1.722E-01	9.493E-01	9.613E-02	6.158E-02	6.320E-03
542	400	2.053E-01	1.466E-01	8.454E-01	2.812E-01	9.661E-02	9.763E-03
614	500	1.708E-01	1.203E-01	7.377E-01	1.048E+00	1.388E-01	1.514E-02
683	500	1.369E-01	9.585E-02	6.322E-01	4.281E+00	1.869E-01	2.391E-02
764	600	1.043E-01	7.442E-02	5.288E-01	2.474E+00	2.376E-01	1.289E-02
803	600	9.967E-02	1.019E-02	4.629E-01	1.520E+00	2.599E-01	1.106E-02
842	600	7.523E-02	1.065E-02	4.143E-01	9.902E-01	2.776E-01	1.043E-02
882	655	6.181E-02	9.273E-03	3.630E-01	6.902E-01	2.886E-01	9.966E-03
923	700	4.944E-02	7.123E-03	3.147E-01	4.983E-01	2.911E-01	9.441E-03
964	755	3.831E-02	4.901E-03	2.634E-01	3.671E-01	2.834E-01	8.681E-03
1006	800	2.853E-02	3.004E-03	2.284E-01	2.703E-01	2.671E-01	7.759E-03
1091	800	1.351E-02	6.536E-04	1.636E-01	1.433E-01	2.152E-01	5.814E-03
1173	800	4.500E-03	1.568E-05	1.022E-01	7.222E-02	1.331E-01	3.770E-03
1263	900	7.868E-04	4.514E-04	4.743E-02	3.252E-02	5.063E-02	1.964E-03
1360	900	1.577E-05	1.114E-03	3.393E-02	1.342E-02	5.690E-03	7.311E-04
1454	1000	1.428E-04	1.201E-03	4.555E-02	6.882E-03	1.733E-03	1.994E-04
1551	1000	1.824E-04	9.200E-04	5.447E-02	6.552E-03	9.264E-03	1.832E-04
1653	1100	1.012E-04	5.300E-04	1.338E-02	6.612E-03	9.956E-03	3.265E-04
1751	1150	2.401E-05	2.507E-04	2.088E-03	4.966E-03	5.542E-03	3.503E-04
1854	1200	3.190E-06	1.510E-04	3.423E-04	2.453E-03	1.587E-03	2.556E-04
1963	1200	2.034E-05	1.409E-04	7.322E-04	8.632E-04	1.013E-04	1.016E-04
2068	1300	3.297E-05	1.114E-04	6.132E-04	5.042E-04	8.094E-05	4.875E-05
2291	1400	4.646E-06	2.245E-05	1.915E-07	3.785E-04	8.482E-05	5.340E-05
2764	1600	1.011E-06	5.592E-06	6.603E-07	1.093E-04	5.979E-07	1.311E-05
3273	1800	4.761E-07	1.712E-06	2.631E-07	1.375E-05	9.051E-06	2.746E-06
3513	2000	2.015E-07	9.997E-07	2.430E-06	4.530E-06	8.058E-06	5.220E-07

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
218	200	77.2	89.8	.1	100.7	-91.4	-171.3
228	250	80.0	89.7	.2	105.8	-89.1	-175.6
234	300	82.5	90.9	-0	115.9	-85.8	-171.2
246	350	82.7	91.3	-2	123.5	-85.2	-174.9
253	400	83.4	92.0	-2	131.1	-83.4	-179.4
262	450	84.8	94.4	-3	140.8	-81.0	176.4
264	500	85.0	102.5	-7	158.0	-77.9	174.2
268	550	85.5	131.5	-1.6	150.3	-74.4	-170.3
264	600	85.1	89.0	-3.3	-89.3	-70.2	-162.9
263	625	85.0	75.5	-4.6	-76.5	-67.8	-169.3
262	650	84.9	72.1	-6.2	-69.3	-65.1	-175.0
262	675	79.9	70.9	-8.0	-65.2	-62.2	-179.7
263	700	80.0	70.1	-10.1	-62.8	-59.0	176.3
265	725	80.2	69.4	-12.4	-61.8	-55.6	172.8
264	750	80.5	68.7	-14.9	-61.3	-51.8	169.7
264	800	82.3	63.5	-19.9	-60.9	-41.8	165.0
263	850	82.2	32.9	-24.0	-64.8	-29.4	158.5
263	900	82.2	-104.1	-35.7	-75.2	-14.5	148.3
262	950	20.3	-114.2	-66.5	-97.1	2.1	129.7
264	1000	-68.4	-121.5	-76.6	-132.6	-165.0	92.2
264	1050	-70.8	-131.5	-69.3	-155.2	-149.1	31.2
264	1100	-90.4	-147.8	-61.9	174.8	-137.3	.6
264	1150	-109.1	-176.7	-65.8	159.7	-125.4	-17.0
264	1200	152.2	141.8	-132.3	142.3	-112.7	-34.0
264	1250	102.0	105.7	-166.8	111.2	-94.3	-60.5
263	1300	91.1	79.3	-166.5	59.6	74.1	-109.5
263	1400	74.8	6.0	-176.5	3.7	29.6	176.0
264	1600	-141.3	-171.0	33.4	178.1	147.3	-4.2
263	1800	23.4	-54.8	153.1	-11.5	-2.6	152.8
3.818	2000	-155.7	92.1	37.7	48.1	-154.5	-107.8

REC = 53 HEADING = 150. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/NAVENT)**2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
227	200	3.434E-01	1.713E-01	9.942E-01	1.619E-03	4.455E-03	1.052E-04
293	200	2.906E-01	1.679E-01	9.892E-01	5.041E-03	1.025E-02	3.720E-04
361	300	2.487E-01	1.804E-01	9.928E-01	1.585E-02	1.983E-02	9.894E-04
434	300	2.128E-01	1.656E-01	9.808E-01	4.526E-02	3.640E-02	2.448E-03
509	400	1.803E-01	1.418E-01	9.440E-01	1.335E-01	6.264E-02	4.633E-03
583	450	1.505E-01	1.162E-01	8.759E-01	4.631E-01	9.942E-02	7.953E-03
673	500	1.226E-01	9.915E-02	7.947E-01	1.703E+00	1.649E-01	1.331E-02
756	550	9.663E-02	1.836E-02	7.275E-01	1.464E+00	2.006E-01	1.012E-02
845	600	7.263E-02	1.549E-02	6.569E-01	6.720E-01	2.582E-01	8.209E-03
931	625	6.148E-02	1.450E-02	6.214E-01	4.870E-01	2.833E-01	8.033E-03
999	650	5.100E-02	1.197E-02	5.851E-01	3.658E-01	3.025E-01	7.791E-03
986	675	4.128E-02	9.165E-03	5.459E-01	2.805E-01	3.173E-01	7.418E-03
1.034	700	3.234E-02	6.459E-03	5.183E-01	2.137E-01	3.221E-01	6.949E-03
1.083	725	2.438E-02	4.411E-03	4.952E-01	1.644E-01	3.220E-01	6.492E-03
1.134	750	1.751E-02	2.669E-03	4.644E-01	1.270E-01	3.066E-01	5.838E-03
1.225	800	7.301E-03	5.504E-04	3.383E-01	7.437E-02	2.378E-01	4.453E-03
1.343	850	1.936E-03	1.892E-05	1.763E-01	4.032E-02	1.255E-01	2.939E-03
1.452	900	1.892E-04	2.796E-04	1.502E-02	1.677E-02	2.334E-02	1.467E-03
1.565	950	1.937E-05	6.136E-04	1.582E-02	6.254E-03	1.970E-03	5.568E-04
1.682	1.000	7.453E-05	7.880E-04	2.185E-02	3.232E-03	1.218E-03	1.693E-04
1.802	1.050	9.403E-05	5.481E-04	1.193E-02	3.156E-03	4.410E-03	1.111E-04
1.925	1.100	4.976E-05	2.985E-04	3.585E-03	3.155E-03	4.133E-03	1.766E-04
2.052	1.150	1.291E-05	1.235E-04	6.284E-04	2.289E-03	2.084E-03	1.899E-04
2.182	1.200	2.078E-06	7.080E-05	1.902E-04	1.097E-03	2.861E-04	1.138E-04
2.315	1.250	1.024E-05	6.054E-05	1.107E-04	3.677E-04	2.094E-05	4.767E-05
2.452	1.300	1.501E-05	4.839E-05	3.062E-05	2.103E-04	3.537E-05	1.999E-05
2.735	1.400	2.947E-06	9.176E-06	1.222E-05	1.412E-04	7.175E-06	2.311E-05
3.746	1.600	1.069E-06	1.598E-06	3.778E-06	3.848E-05	5.893E-06	4.936E-06
4.010	1.800	4.452E-07	8.604E-07	2.503E-06	5.905E-06	1.002E-05	1.342E-06
4.726	2.000	1.383E-07	8.132E-07	2.149E-06	3.316E-06	5.290E-06	2.804E-07

PHASE (MOTION-WAVEVENT)

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	77.2	89.7	.2	102.6	-89.9	-152.0
.231	.250	81.0	90.1	.1	110.0	-87.2	-166.8
.236	.300	82.5	91.1	-.1	120.5	-84.8	-166.0
.237	.350	82.7	91.6	-.2	128.7	-83.2	-172.9
.238	.400	82.4	93.1	-.2	138.6	-81.1	-178.8
.239	.450	81.9	98.0	-.4	153.4	-78.9	-177.6
.240	.500	81.4	114.5	-1.0	-161.1	-74.3	-173.2
.241	.550	81.3	101.2	-1.9	-101.0	-69.8	-161.6
.242	.600	81.4	83.4	-3.3	-75.9	-64.3	-170.3
.243	.650	81.6	80.8	-3.9	-71.2	-61.0	-174.6
.244	.700	81.9	79.2	-4.4	-68.6	-57.4	-178.5
.245	.750	82.4	78.0	-4.6	-64.5	-53.6	-177.9
.246	.800	83.5	77.5	-4.4	-62.0	-48.8	-175.8
.247	.850	84.9	76.6	-3.2	-60.1	-43.3	-173.9
.248	.900	86.6	74.9	-.5	-59.1	-37.0	-171.6
.249	.950	90.6	66.8	10.0	-59.7	-21.7	-166.0
.250	1.000	93.1	-32.4	23.7	-64.5	-3.4	-157.9
.251	1.050	84.1	-96.9	14.9	-74.1	18.6	-150.1
.252	1.100	-22.8	-106.2	-49.8	-94.7	43.4	-135.9
.253	1.150	-69.1	-114.2	-49.6	-131.0	-146.4	-102.1
.254	1.200	-81.0	-125.4	-41.8	-165.9	-123.2	43.0
.255	1.250	-89.3	-141.6	-42.1	-173.6	-111.8	8.7
.256	1.300	-102.0	-168.6	-62.9	153.1	-103.7	-9.3
.257	1.350	167.4	150.2	-112.8	141.0	-104.3	-26.9
.258	1.400	112.6	110.6	-113.4	106.7	-104.8	-53.2
.259	1.450	99.9	81.8	-167.8	54.9	-129.2	-105.4
.260	1.500	71.2	-3.0	85.4	-1.3	88.7	-175.0
.261	1.550	-150.7	176.1	-79.0	166.2	165.8	-12.0
.262	1.600	9.2	-56.8	132.6	-49.2	-11.2	-135.7
.263	1.650	-138.1	71.4	22.0	54.6	-153.2	-110.9

REC = 54 HEADING = 150. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)**2

W	NE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	2.92E-01	1.507E-01	9.958E-01	1.68E-03	4.62E-03	3.056E-05
.250	2.39E-01	1.522E-01	9.982E-01	5.65E-03	1.01E-02	1.264E-04
.300	1.99E-01	1.558E-01	1.008E+00	1.88E-02	1.94E-02	5.314E-04
.350	1.66E-01	1.395E-01	1.003E+00	5.73E-02	3.61E-02	1.641E-03
.400	1.38E-01	1.180E-01	9.731E-01	1.93E-01	6.32E-02	3.552E-03
.450	1.13E-01	8.986E-02	9.136E-01	8.31E-01	1.01E-01	7.103E-03
.500	9.07E-02	2.769E-02	8.882E-01	1.46E+00	1.50E-01	8.245E-03
.550	7.03E-02	2.034E-02	8.578E-01	6.40E-01	2.09E-01	6.007E-03
.600	5.19E-02	1.671E-02	8.531E-01	3.30E-01	2.71E-01	5.887E-03
.625	4.34E-02	1.378E-02	8.428E-01	2.58E-01	2.96E-01	5.628E-03
.650	3.55E-02	1.080E-02	8.320E-01	1.94E-01	3.23E-01	5.654E-03
.675	2.81E-02	8.066E-03	8.747E-01	1.53E-01	3.45E-01	5.466E-03
.700	2.14E-02	5.698E-03	8.909E-01	1.20E-01	3.57E-01	5.220E-03
.725	1.54E-02	3.745E-03	8.759E-01	9.63E-02	3.54E-01	4.906E-03
.750	1.04E-02	2.22E-03	7.976E-01	7.73E-02	3.31E-01	4.517E-03
.800	3.39E-03	4.627E-04	4.203E-01	4.66E-02	2.16E-01	3.427E-03
.850	6.03E-04	2.771E-05	7.099E-02	2.20E-02	7.91E-02	2.114E-03
.900	5.72E-05	1.633E-04	8.770E-04	9.50E-03	1.47E-02	1.104E-03
.950	2.62E-05	3.798E-04	9.725E-03	3.47E-03	2.87E-03	4.220E-04
1.000	4.95E-05	4.192E-04	9.910E-03	1.65E-03	1.34E-03	1.10E-04
1.050	5.32E-05	3.190E-04	4.732E-03	1.63E-03	2.67E-03	6.414E-05
1.100	2.87E-05	1.782E-04	1.339E-03	1.68E-03	1.530E-03	9.730E-05
1.150	7.71E-06	7.416E-05	2.019E-04	1.16E-03	4.74E-04	1.016E-04
1.200	3.00E-06	3.301E-05	7.176E-05	5.66E-04	8.04E-05	6.155E-05
1.250	8.11E-06	2.853E-05	4.550E-05	1.70E-04	2.96E-05	2.109E-05
1.300	9.53E-06	2.212E-05	1.396E-05	1.13E-04	2.80E-05	9.416E-06
1.400	1.57E-06	4.386E-06	8.921E-06	6.33E-05	5.03E-06	1.090E-05
1.500	9.41E-07	9.333E-07	3.692E-06	2.23E-05	7.50E-06	3.009E-06
1.600	3.24E-07	7.878E-07	3.127E-06	3.46E-06	7.63E-06	6.457E-07
1.800	1.13E-07	5.941E-07	7.099E-07	4.18E-06	2.85E-06	4.855E-07

PHASE (MOTION-WAVEHT)

WE	236	200	SURSE	SWAY	HEAVE	ROLL	PITCH	YAW
236	200	77.2	89.7	.1	104.5	-87.8	-138.2	-138.2
250	250	81.0	90.4	.1	113.9	-85.0	-149.6	-149.6
300	300	82.5	91.3	-.1	124.1	-82.7	-159.4	-159.4
350	350	82.7	92.0	-.1	132.7	-81.2	-171.2	-171.2
400	400	82.5	94.5	-.2	145.1	-78.7	-178.6	-178.6
450	450	82.1	104.4	-.5	173.5	-75.0	-179.1	-179.1
500	500	82.1	111.2	-.9	-117.6	-73.7	-158.4	-158.4
550	550	82.3	88.2	-1.4	-79.9	-65.2	-163.4	-163.4
600	600	83.0	82.8	-1.2	-66.9	-58.3	-172.6	-172.6
625	625	83.5	81.5	-.5	-63.8	-54.3	-176.4	-176.4
650	650	84.7	81.2	-.8	-60.5	-49.4	-173.7	-173.7
675	675	86.4	80.7	3.5	-57.3	-43.6	179.4	179.4
700	700	88.4	79.7	8.0	-55.8	-37.0	177.4	177.4
725	725	90.9	77.9	14.7	-54.5	-32.2	175.2	175.2
750	750	93.6	75.2	24.0	-54.3	-20.3	172.5	172.5
800	800	93.2	64.9	49.5	-55.7	1.4	166.6	166.6
850	850	93.1	57	77.3	-59.6	25.6	161.7	161.7
900	900	94.9	-83.5	26.9	-68.8	45.3	154.1	154.1
950	950	98.1	-98.5	-25.3	-90.4	59.0	140.4	140.4
1000	1000	-56.4	-109.2	-29.5	-130.5	-107.6	109.8	109.8
1050	1050	-72.6	-120.4	-26.5	-155.5	-101.2	50.7	50.7
1100	1100	-89.7	-136.7	-36.1	173.2	-98.2	12.2	12.2
1150	1150	-117.1	-162.1	-56.1	157.6	-100.9	-7.2	-7.2
1200	1200	165.7	163.1	-101.8	139.3	-122.7	-25.1	-25.1
1250	1250	119.6	107.5	-149.8	103.8	171.7	-54.8	-54.8
1300	1300	102.0	76.5	170.7	47.2	143.0	-115.1	-115.1
1400	1400	45.2	-13.1	64.2	-8.5	-12.9	170.2	170.2
1500	1500	-159.3	161.4	-58.7	152.8	161.9	-22.0	-22.0
1600	1600	12.5	-55.1	159.1	-9.9	-9.9	123.3	123.3
1700	1700	-138.5	77.6	33.4	43.3	-155.1	-132.9	-132.9

REC = 55 HEADING = 150. DEG SHIP SPEED = 25. KNOTS RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.245	.200	2.510E-01	1.316E-01	9.981E-01	1.769E-03	4.756E-03	1.484E-05
.321	.250	1.999E-01	1.354E-01	1.010E+00	6.357E-03	9.876E-03	4.334E-05
.402	.300	1.622E-01	1.334E-01	1.026E+00	2.188E-02	1.877E-02	2.761E-04
.469	.350	1.325E-01	1.171E-01	1.029E+00	7.259E-02	2.556E-02	1.132E-03
.582	.400	1.080E-01	9.597E-02	1.007E+00	2.755E-01	6.341E-02	2.933E-03
.680	.450	8.698E-02	5.333E-02	9.872E-01	8.308E-01	1.019E-01	5.666E-03
.784	.500	6.872E-02	2.493E-02	1.008E+00	5.944E-01	1.525E-01	4.632E-03
.894	.550	5.255E-02	2.077E-02	1.049E+00	2.395E-01	2.143E-01	4.416E-03
1.009	.600	3.810E-02	1.489E-02	1.110E+00	1.733E-01	2.793E-01	4.431E-03
1.059	.625	3.142E-02	1.195E-02	1.139E+00	1.379E-01	3.158E-01	4.439E-03
1.131	.650	2.520E-02	9.096E-03	1.282E+00	1.106E-01	3.493E-01	4.375E-03
1.193	.675	1.943E-02	6.678E-03	1.365E+00	9.046E-02	3.756E-01	4.287E-03
1.257	.700	1.416E-02	4.530E-03	1.383E+00	7.483E-02	3.869E-01	4.149E-03
1.323	.725	9.500E-03	2.969E-03	1.265E+00	6.212E-02	3.717E-01	3.947E-03
1.389	.750	5.572E-03	1.737E-03	9.282E-01	4.887E-02	3.204E-01	3.535E-03
1.523	.800	1.282E-03	4.087E-04	2.776E-01	2.711E-02	1.479E-01	2.522E-03
1.671	.850	2.644E-04	3.757E-05	2.203E-02	1.373E-02	4.004E-02	1.619E-03
1.821	.900	6.577E-05	9.684E-05	1.822E-03	5.502E-03	4.661E-03	7.942E-04
1.975	.950	3.320E-05	2.172E-04	6.941E-03	1.845E-03	1.029E-03	2.815E-04
2.137	1.000	3.641E-05	2.554E-04	4.887E-03	9.059E-04	1.038E-03	7.076E-05
2.303	1.050	3.684E-05	2.013E-04	1.981E-03	9.447E-04	1.011E-03	3.544E-05
2.475	1.100	1.624E-05	1.057E-04	9.633E-04	9.662E-04	5.072E-04	5.637E-05
2.654	1.150	4.635E-06	3.663E-05	1.125E-04	6.723E-04	1.478E-04	5.623E-05
2.837	1.200	2.913E-06	1.649E-05	4.705E-05	2.927E-04	3.552E-05	3.111E-05
3.026	1.250	4.664E-06	1.421E-05	7.274E-06	1.002E-04	3.072E-05	1.067E-05
3.221	1.300	4.049E-06	1.181E-05	1.465E-06	7.431E-05	1.214E-05	5.545E-06
3.623	1.400	1.172E-06	3.311E-06	5.492E-06	3.556E-05	7.333E-06	6.540E-06
4.511	1.600	7.742E-07	9.404E-07	2.934E-06	1.401E-05	5.301E-06	2.116E-06
5.434	1.800	2.522E-07	4.879E-07	1.357E-06	3.491E-06	9.257E-06	7.288E-07
6.545	2.000	1.755E-07	4.488E-07	8.444E-07	2.823E-06	3.016E-06	2.947E-07

PHASE (MOTION-HAVEHT)

WE	245	200	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
1.245	1.245	1.245	77.3	89.7	.1	106.5	-85.4	-86.2
1.321	1.321	1.321	81.1	90.7	.0	113.4	-82.5	-108.3
1.402	1.402	1.402	82.5	91.5	.0	128.9	-80.8	-150.6
1.489	1.489	1.489	82.8	92.7	.0	139.3	-79.3	-169.5
1.582	1.582	1.582	82.5	92.1	.1	153.4	-75.4	-177.0
1.680	1.680	1.680	82.5	91.9	.3	160.5	-72.4	-185.6
1.784	1.784	1.784	82.7	91.1	.3	165.5	-67.3	-197.3
1.894	1.894	1.894	83.4	89.1	.4	174.2	-60.6	-195.7
1.999	1.999	1.999	84.8	85.1	2.8	185.3	-52.6	-173.2
1.069	1.069	1.069	86.4	80.0	5.6	191.4	-47.2	-175.0
1.130	1.130	1.130	88.5	84.5	10.0	193.3	-40.8	-176.8
1.193	1.193	1.193	91.1	83.7	16.9	196.0	-33.4	-178.8
1.257	1.257	1.257	94.2	81.7	25.7	194.6	-24.4	178.8
1.323	1.323	1.323	97.7	79.3	39.4	193.9	-13.8	176.1
1.389	1.389	1.389	101.1	76.8	55.7	193.6	-1.0	173.8
1.458	1.458	1.458	99.3	67.5	82.0	194.7	26.3	170.2
1.528	1.528	1.528	80.3	47.7	118.3	198.2	46.6	165.2
1.591	1.591	1.591	43.2	27.9	141.0	198.8	54.4	157.7
1.657	1.657	1.657	11.3	9.2	149.4	192.1	43.2	145.3
1.725	1.725	1.725	11.6	1.9	158.8	194.2	-89.6	115.6
1.794	1.794	1.794	51.6	1.6	167.9	190.9	-90.2	51.5
1.864	1.864	1.864	75.0	1.8	174.0	184.4	-92.5	12.2
1.934	1.934	1.934	94.2	1.5	180.1	168.4	-104.5	-8.1
2.004	2.004	2.004	128.4	1.6	186.6	152.9	-114.7	-27.1
2.074	2.074	2.074	159.6	1.7	192.6	132.9	-121.5	-59.8
2.144	2.144	2.144	121.9	1.9	198.0	92.6	176.6	-121.9
2.214	2.214	2.214	98.7	2.0	203.7	39.4	174.3	165.1
2.284	2.284	2.284	40.0	1.7	208.2	19.9	-16.3	165.1
2.354	2.354	2.354	150.3	1.3	212.6	140.9	197.9	109.7
2.424	2.424	2.424	15.6	1.6	216.9	85.2	-19.4	109.7
2.494	2.494	2.494	135.8	1.5	221.3	47.3	-154.4	-127.2

REC = 56

HEADING = 165. DEG
RAO (MOTION/HAVENT)*2

SHIP SPEED = 5. KNOTS

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	5.890E-01	5.827E-02	9.915E-01	3.974E-04	5.021E-03	1.547E-04
.265	.250	5.349E-01	5.522E-02	9.760E-01	1.119E-03	1.205E-02	3.938E-04
.323	.300	4.860E-01	5.042E-02	9.572E-01	3.157E-03	2.436E-02	8.764E-04
.381	.350	4.371E-01	5.939E-02	9.247E-01	8.245E-03	4.420E-02	1.702E-03
.441	.400	3.857E-01	5.286E-02	8.642E-01	2.062E-02	7.337E-02	2.777E-03
.501	.450	3.311E-01	4.460E-02	7.695E-01	5.299E-02	1.117E-01	3.995E-03
.561	.500	2.737E-01	3.697E-02	6.402E-01	1.532E-01	1.554E-01	5.393E-03
.627	.550	2.150E-01	3.274E-02	4.883E-01	6.111E-01	1.953E-01	7.662E-03
.691	.600	1.587E-01	2.855E-02	3.503E-01	4.655E-00	2.302E-01	1.472E-02
.724	.625	1.323E-01	4.590E-03	2.865E-01	3.738E-00	2.421E-01	7.142E-03
.757	.650	1.075E-01	9.851E-04	2.252E-01	1.506E-00	2.475E-01	3.581E-03
.791	.675	8.488E-02	1.054E-03	1.723E-01	7.263E-01	2.451E-01	3.035E-03
.824	.700	6.470E-02	8.767E-04	1.272E-01	4.083E-01	2.541E-01	2.802E-03
.858	.725	4.728E-02	5.428E-04	9.157E-02	2.497E-01	2.143E-01	2.596E-03
.893	.750	3.279E-02	2.434E-04	6.545E-02	1.585E-01	1.866E-01	2.255E-03
.927	.800	1.265E-02	2.115E-05	3.753E-02	6.491E-02	1.160E-01	1.421E-03
.962	.850	2.841E-03	2.050E-04	3.263E-02	2.461E-02	4.844E-02	6.902E-04
1.005	.900	9.635E-05	4.832E-04	3.753E-02	9.398E-03	6.843E-03	2.212E-04
1.073	.950	4.027E-03	5.341E-04	4.254E-02	4.987E-03	2.590E-03	4.121E-05
1.123	1.000	7.856E-04	4.309E-04	4.225E-02	4.813E-03	2.085E-02	7.517E-05
1.173	1.050	4.693E-04	2.260E-04	2.783E-02	4.579E-03	3.001E-02	1.641E-04
1.223	1.100	7.260E-05	9.655E-05	7.887E-03	3.014E-03	1.926E-02	1.654E-04
1.273	1.150	1.144E-05	7.533E-05	1.065E-03	1.302E-03	4.895E-03	9.832E-05
1.323	1.200	9.454E-05	8.204E-05	2.935E-03	4.959E-04	2.506E-04	4.347E-05
1.373	1.250	1.043E-04	6.197E-05	2.455E-03	4.600E-04	1.246E-03	3.634E-05
1.423	1.300	1.189E-05	2.947E-05	5.272E-04	4.677E-04	1.550E-03	4.686E-05
1.473	1.350	1.100E-05	2.183E-05	1.752E-04	3.010E-03	2.571E-04	1.303E-05
1.523	1.400	5.320E-06	5.505E-06	1.715E-05	3.262E-06	3.212E-05	2.555E-06
1.573	1.450	2.675E-06	9.880E-07	2.493E-06	1.061E-05	1.703E-06	1.289E-06
1.623	1.500	6.182E-07	2.756E-07	2.711E-07	7.544E-07	7.343E-06	5.049E-07
1.673	1.550						

PHASE (MOTION-AVERT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
240	200	78.2	89.8	.1	100.0	-92.2	-177.0
250	250	81.6	89.8	.2	105.2	-93.0	-179.3
260	300	82.8	91.5	.0	113.6	-88.1	-176.3
270	350	83.0	91.0	-.1	121.1	-86.6	-177.9
280	400	82.6	91.5	-.2	127.6	-84.9	-178.8
290	450	81.9	92.9	-.3	133.9	-82.8	-175.2
300	500	81.1	95.7	-.5	140.9	-80.3	-171.6
310	550	80.2	108.3	-1.5	152.8	-77.1	-169.0
320	600	79.5	168.2	-3.6	154.1	-73.8	-170.3
330	625	79.1	-113.1	-5.2	-100.5	-72.0	-151.1
340	650	78.8	-23.6	-7.0	-75.6	-69.9	-162.5
350	675	78.5	17.1	-11.0	-65.9	-67.7	-174.8
360	700	78.2	28.5	-15.7	-61.7	-65.2	-177.5
370	725	77.9	38.7	-22.3	-60.3	-62.6	-172.1
380	750	77.6	28.6	-31.2	-60.6	-59.7	-167.7
390	800	76.6	-51.3	-58.5	-65.7	-53.2	-159.6
400	850	74.2	-113.4	-65.5	-76.3	-44.7	-151.2
410	900	45.1	-121.2	-106.9	-98.2	-41.2	-136.3
420	950	-73.2	-128.7	-120.7	-134.4	143.3	86.4
430	1.000	-81.6	-140.0	-126.5	-165.5	155.6	9.0
440	1.050	-79.9	-160.3	-124.7	-172.1	-179.1	-18.1
450	1.100	-77.7	163.6	-124.2	155.2	-160.4	-34.6
460	1.150	97.8	116.5	177.5	133.4	-139.2	-54.3
470	1.200	96.9	83.3	136.5	91.5	-56.1	-90.6
480	1.250	92.2	56.8	141.3	41.5	31.3	-143.9
490	1.300	84.9	20.4	159.9	13.5	53.9	179.8
500	1.350	-95.2	-84.7	-32.5	-55.6	131.7	115.7
510	1.400	74.2	82.4	112.8	69.9	-2.2	-84.7
520	1.500	-111.9	-135.0	2.7	172.8	-100.1	23.0
530	2.000	13.3	-46.8	-161.1	21.2	-17.9	146.7

REC = 57

HEADINGS = 165. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVENT)**2

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	4.869E-01	5.082E-02	9.917E-01	4.211E-04	5.230E-03	8.380E-05
.282	.250	4.239E-01	4.746E-02	9.791E-01	1.235E-03	1.244E-02	2.515E-04
.345	.300	3.702E-01	5.330E-02	9.701E-01	3.848E-03	2.459E-02	5.657E-04
.412	.350	3.211E-01	4.979E-02	9.429E-01	1.066E-02	4.483E-02	1.170E-03
.481	.400	2.740E-01	4.290E-02	8.888E-01	2.965E-02	7.543E-02	1.976E-03
.553	.450	2.280E-01	3.589E-02	7.914E-01	9.353E-02	1.165E-01	2.994E-03
.627	.500	1.831E-01	3.080E-02	6.665E-01	4.265E-01	1.628E-01	4.754E-03
.703	.550	1.406E-01	8.991E-03	5.522E-01	2.265E+00	2.143E-01	7.463E-03
.783	.600	1.014E-01	1.591E-02	4.809E-01	6.306E-01	2.610E-01	2.744E-03
.823	.650	8.354E-02	2.239E-03	3.735E-01	3.563E-01	2.773E-01	2.544E-03
.864	.700	6.705E-02	2.062E-03	3.230E-01	2.284E-01	2.858E-01	2.457E-03
.905	.750	5.217E-02	1.563E-03	2.740E-01	1.521E-01	2.845E-01	2.326E-03
.943	.800	3.912E-02	1.019E-03	2.255E-01	1.055E-01	2.719E-01	2.124E-03
.992	.850	2.803E-02	5.620E-04	1.839E-01	7.456E-02	2.479E-01	1.858E-03
1.035	.900	1.886E-02	2.517E-04	1.558E-01	5.172E-02	2.203E-01	1.590E-03
1.123	.950	6.585E-03	4.784E-05	9.597E-02	2.424E-02	1.416E-01	1.029E-03
1.215	.000	1.865E-03	1.054E-04	4.923E-02	1.025E-02	5.690E-02	5.235E-04
1.311	.050	1.745E-03	2.966E-04	3.455E-02	4.044E-03	6.525E-03	1.834E-04
1.408	.100	1.804E-04	3.416E-04	5.004E-02	2.042E-03	2.561E-03	4.539E-05
1.507	.150	2.223E-04	2.475E-04	4.136E-02	1.975E-03	1.254E-02	5.157E-05
1.609	.200	1.002E-04	1.301E-04	1.441E-02	1.896E-03	1.233E-02	9.232E-05
1.713	.250	1.484E-05	6.066E-05	1.546E-03	1.313E-03	5.875E-03	9.681E-05
1.821	.300	3.457E-05	4.021E-05	3.729E-04	5.526E-04	1.201E-03	5.474E-05
1.931	.350	3.885E-05	3.764E-05	8.603E-04	1.830E-04	2.329E-03	2.066E-05
2.042	.400	1.633E-05	2.592E-05	5.816E-04	1.523E-04	2.622E-04	1.412E-05
2.157	.450	1.359E-06	1.697E-05	7.598E-05	1.482E-04	2.847E-04	1.678E-05
2.284	.500	1.495E-06	6.193E-06	3.422E-05	5.925E-06	2.860E-06	3.691E-06
2.393	.550	1.495E-06	1.672E-06	2.044E-06	1.601E-06	2.663E-06	5.635E-07
3.443	.600	4.027E-07	4.376E-07	6.838E-06	3.720E-06	6.470E-06	5.242E-07
4.028	.650	4.842E-07	1.396E-07	1.538E-06	1.575E-07	7.429E-06	1.771E-07

PHASE (MOTION-WAVEVENT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.220	.200	78.3	89.7	.2	101.5	-91.0	-171.6
.262	.250	81.6	89.7	.2	107.0	-88.7	-175.5
.346	.300	82.8	90.9	.0	117.2	-86.4	-172.0
.412	.350	82.9	91.2	.2	124.5	-84.7	-175.9
.481	.400	82.5	92.1	.2	131.6	-82.6	-179.4
.553	.450	81.9	95.1	.5	140.2	-79.9	-175.0
.627	.500	81.2	105.9	-1.1	156.8	-76.4	-172.4
.703	.550	80.8	162.1	-2.4	132.9	-72.5	-161.1
.783	.600	81.6	60.6	-4.9	-73.4	-67.8	-165.4
.864	.625	80.6	62.4	-6.7	-65.0	-65.0	-173.8
.906	.650	80.6	63.8	-8.9	-60.7	-62.0	-179.7
.948	.675	80.8	64.4	-11.5	-58.6	-58.6	-175.7
.992	.700	81.0	64.4	-14.5	-58.0	-55.0	-171.8
1.035	.725	81.3	64.2	-17.7	-58.5	-51.1	-168.1
1.125	.800	82.2	62.6	-21.5	-58.4	-46.2	-165.7
1.216	.850	84.4	13.2	-29.2	-61.6	-34.3	-159.7
1.311	.900	85.5	-105.2	-42.1	-71.6	-19.0	-150.2
1.403	.950	71.3	-123.5	-64.7	-94.1	2.0	-131.4
1.507	1.000	-77.8	-137.0	-84.7	-131.7	-176.8	-86.6
1.609	1.050	-88.2	-151.6	-75.4	-164.8	-153.6	22.4
1.713	1.100	-116.4	175.0	-64.8	175.2	-138.4	-5.5
1.821	1.150	125.6	130.0	-68.7	159.6	-125.1	-22.3
1.931	1.200	99.0	95.3	-160.2	139.0	-107.4	-41.8
2.042	1.250	90.8	69.3	-176.0	98.1	-32.9	-76.3
2.157	1.300	85.3	32.7	-168.7	45.2	74.6	-131.9
2.294	1.400	-82.8	-76.6	-155.9	16.7	92.8	-170.5
2.493	1.500	101.1	84.6	13.7	-72.5	-54.7	-125.3
2.643	1.600	-141.8	-154.3	80.3	37.6	145.3	-89.5
2.827	1.800	13.3	-81.6	-72.3	170.4	101.4	8.1
3.027	2.000			156.8	-54.7	-11.8	133.6

REC = 58

HEADING = 155. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/NAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	4.058E-01	4.42E-02	9.92E-01	4.456E-04	5.440E-03	3.45E-05
.298	.250	3.400E-01	4.38E-02	9.86E-01	1.440E-03	1.254E-02	1.18E-04
.368	.300	2.870E-01	4.64E-02	9.34E-01	4.661E-03	2.454E-02	3.33E-04
.443	.350	2.415E-01	4.12E-02	9.64E-01	1.388E-02	4.617E-02	7.89E-04
.522	.400	2.005E-01	3.61E-02	9.13E-01	4.433E-02	7.720E-02	1.44E-03
.604	.450	1.628E-01	2.92E-02	8.29E-01	1.890E-01	1.225E-01	2.50E-03
.690	.500	1.281E-01	1.94E-02	7.41E-01	1.317E-00	1.726E-01	4.63E-03
.780	.550	9.651E-02	1.34E-02	6.60E-01	4.390E-01	2.326E-01	2.21E-03
.874	.600	6.919E-02	2.35E-03	5.78E-01	1.662E-01	2.865E-01	1.96E-03
.971	.650	5.546E-02	2.03E-03	5.37E-01	1.152E-01	3.046E-01	1.91E-03
1.073	.700	4.287E-02	2.17E-03	4.94E-01	8.441E-02	2.130E-01	1.88E-03
1.178	.750	3.246E-02	1.67E-03	4.57E-01	6.175E-02	3.150E-01	1.71E-03
1.285	.800	2.438E-02	9.62E-04	4.27E-01	4.547E-02	3.692E-01	1.55E-03
1.393	.850	1.679E-02	5.12E-04	3.90E-01	3.371E-02	2.895E-01	1.35E-03
1.503	.900	1.073E-02	2.26E-04	3.37E-01	2.487E-02	2.546E-01	1.19E-03
1.615	.950	6.654E-03	5.72E-05	2.66E-02	1.281E-02	1.407E-01	7.83E-04
1.730	1.000	3.596E-03	7.22E-05	2.66E-02	5.438E-03	4.551E-02	3.99E-04
1.846	1.050	1.84E-03	1.097E-04	1.68E-02	1.904E-03	2.945E-03	1.40E-04
1.963	1.100	8.654E-04	1.092E-04	2.64E-02	9.597E-04	1.742E-03	3.79E-05
2.080	1.150	4.734E-04	1.92E-04	1.43E-02	9.560E-04	5.517E-03	3.26E-05
2.195	1.200	3.285E-04	7.22E-05	3.64E-03	9.367E-04	4.775E-03	5.05E-05
2.315	1.250	3.939E-04	1.85E-04	4.40E-04	9.917E-04	2.66E-03	4.84E-05
2.433	1.300	1.606E-04	1.84E-04	1.28E-04	2.402E-04	2.887E-04	2.67E-05
2.553	1.350	1.887E-04	1.09E-04	2.18E-05	7.573E-05	5.704E-06	9.39E-06
2.673	1.400	7.403E-05	4.72E-04	4.54E-06	6.071E-05	5.348E-05	5.47E-06
2.793	1.450	1.404E-04	3.38E-04	5.10E-06	5.716E-05	5.159E-05	5.91E-06
2.913	1.500	2.168E-04	5.45E-04	1.23E-06	2.306E-06	4.922E-06	1.31E-06
3.033	1.550	1.424E-04	1.667E-04	3.34E-06	1.834E-06	5.602E-06	2.00E-07
3.153	1.600	1.424E-04	1.667E-04	3.34E-06	1.834E-06	5.602E-06	2.00E-07
3.273	1.650	2.406E-04	5.971E-04	5.41E-07	3.326E-07	3.735E-06	9.66E-08

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.233	.200	78.3	89.7	.2	103.5	-89.5	-161.9
.238	.250	81.6	90.2	.1	111.4	-86.8	-166.1
.368	.300	82.8	91.1	-1	121.4	-84.5	-167.3
.443	.380	82.9	91.6	-2	128.9	-82.7	-174.3
.522	.400	82.6	93.4	-3	137.7	-80.2	-179.6
.604	.450	82.1	100.1	-7	153.7	-76.7	-175.5
.690	.500	81.8	131.9	-1.4	-147.9	-72.5	-166.8
.730	.550	81.2	83.2	-2.8	-81.0	-67.4	-160.8
.87+	.600	82.2	75.4	-4.5	-53.6	-61.0	-174.2
.922	.625	82.6	74.7	-5.3	-60.2	-57.3	-178.8
.971	.650	83.1	74.2	-5.7	-58.4	-53.2	-177.2
1.022	.675	84.1	74.0	-5.8	-56.8	-48.4	-174.4
1.073	.700	85.6	73.3	-6.0	-55.3	-42.6	-172.3
1.125	.725	87.5	71.6	-2.7	-54.7	-36.0	-170.0
1.176	.750	89.6	68.2	-2.7	-55.1	-28.4	-167.2
1.287	.800	94.7	15.8	13.7	-59.3	-10.1	-159.7
1.393	.850	92.9	-98.4	13.5	-69.5	12.5	-150.0
1.516	.900	-24.4	-107.9	-52.9	-91.0	43.7	135.6
1.636	.950	-70.9	-115.8	-42.4	-129.1	-152.3	98.0
1.760	1.000	-82.7	-127.2	-41.4	-163.5	-127.9	35.3
1.888	1.050	-92.1	-145.2	-41.4	176.0	-113.2	3.4
2.020	1.100	-110.6	-176.1	-66.9	160.9	-102.8	-14.2
2.156	1.150	134.1	139.1	-132.3	139.9	-98.6	-33.8
2.295	1.200	105.6	100.7	-154.7	97.6	151.0	-89.0
2.438	1.250	95.2	71.2	-173.5	43.1	112.3	-127.1
2.585	1.300	84.2	31.7	108.8	12.6	108.9	-174.1
2.891	1.400	-65.9	-83.0	33.4	-104.7	-22.5	117.7
3.543	1.600	124.2	63.9	77.5	164.7	-140.1	-117.9
4.265	1.800	-175.5	-156.7	-100.1	164.7	95.8	5.9
5.041	2.000	8.5	-97.1	158.6	-101.8	-13.0	108.3

REC = 59

HEADING = 165. DEG
RAO (MOTION/WAVEHT)**2

SHIP SPEED = 20. KNOTS

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
241	200	3.40E-01	3.04E-02	9.94E-01	4.73E-04	5.61E-03	1.058E-05
243	250	2.75E-01	3.92E-02	9.96E-01	1.67E-03	1.24E-02	4.30E-05
244	300	2.26E-01	3.92E-02	1.30E+00	5.63E-03	2.41E-02	1.85E-04
247	350	1.85E-01	3.45E-02	9.88E-01	1.84E-02	4.51E-02	5.34E-04
252	400	1.50E-01	2.92E-02	9.47E-01	7.20E-02	7.83E-02	1.18E-03
255	450	1.19E-01	2.38E-02	8.88E-01	5.09E-01	1.23E-01	2.65E-03
257	500	9.27E-02	2.70E-03	8.50E-01	5.51E-01	1.80E-01	1.83E-03
257	550	6.86E-02	4.43E-03	8.22E-01	1.63E-01	2.45E-01	1.29E-03
257	600	4.74E-02	3.35E-03	7.95E-01	7.84E-02	3.01E-01	1.42E-03
257	625	3.80E-02	2.59E-03	7.89E-01	5.82E-02	3.24E-01	1.33E-03
257	650	2.94E-02	1.88E-03	8.12E-01	4.33E-02	3.42E-01	1.34E-03
257	675	2.17E-02	1.28E-03	8.09E-01	3.37E-02	3.52E-01	1.27E-03
257	700	1.52E-02	7.92E-04	7.89E-01	2.58E-02	3.43E-01	1.10E-03
257	725	9.76E-03	4.28E-04	6.95E-01	2.00E-02	3.13E-01	1.05E-03
257	750	5.61E-03	1.85E-04	5.99E-01	1.51E-02	2.59E-01	9.34E-04
257	800	1.06E-03	9.91E-05	1.57E-01	7.83E-03	1.13E-01	5.82E-04
257	850	8.71E-05	3.86E-05	2.42E-03	2.95E-03	2.23E-02	2.93E-04
257	900	1.79E-05	1.04E-04	9.70E-03	1.04E-03	8.53E-03	1.10E-04
257	950	5.17E-05	1.17E-04	1.16E-02	5.03E-04	1.49E-03	2.65E-05
257	1000	5.60E-05	8.54E-05	5.26E-03	5.06E-04	7.12E-03	1.76E-05
257	1050	2.78E-05	4.44E-05	1.28E-03	4.72E-04	1.82E-03	2.73E-05
257	1100	5.64E-06	1.72E-05	2.12E-04	3.04E-04	4.87E-04	2.59E-05
257	1150	4.12E-06	8.19E-06	5.68E-05	1.17E-04	5.05E-05	1.34E-05
257	1200	1.07E-05	7.29E-06	4.10E-05	3.47E-05	2.41E-05	3.98E-06
257	1250	9.84E-06	4.69E-06	9.86E-06	3.21E-05	2.48E-05	2.83E-06
257	1300	3.52E-06	1.75E-06	7.63E-06	2.83E-05	1.42E-06	3.44E-06
257	1350	5.29E-07	1.74E-06	5.89E-07	2.43E-06	9.04E-06	5.79E-07
257	1400	1.16E-07	4.95E-07	2.93E-06	1.42E-06	8.62E-06	2.02E-07
257	1450	7.06E-08	8.62E-08	2.35E-06	8.07E-07	4.01E-06	1.43E-07
257	1500	2.10E-07	9.42E-08	7.34E-07	3.07E-07	2.90E-06	8.07E-08

PHASE (MOTION-WAVE1)

HE	R	SURGE	SKAY	HEAVE	ROLL	PITCH	YAW
2.41	200	78.3	88.7	.1	105.4	-87.6	-139.8
3.13	250	81.6	90.5	.1	115.3	-84.7	-150.0
3.91	300	82.8	91.3	.1	124.6	-82.5	-162.0
4.74	350	82.9	93.1	.1	132.0	-80.6	-173.2
5.62	400	82.6	95.3	.3	142.7	-77.5	-179.0
6.55	450	82.4	113.2	.7	176.7	-73.5	-178.6
7.54	500	82.5	93.1	1.3	-90.7	-68.5	-150.8
8.57	550	83.0	79.2	1.9	-63.5	-62.1	-168.8
9.65	600	84.1	77.9	1.3	-55.0	-54.1	-176.9
1.021	650	85.2	77.9	1.3	-53.6	-49.2	-180.0
1.078	700	87.0	77.9	2.4	-51.2	-43.2	-178.1
1.137	750	89.1	77.0	6.8	-49.5	-35.3	-176.0
1.197	800	91.8	75.3	13.7	-48.9	-28.2	-173.6
1.258	850	94.8	72.3	25.3	-49.0	-18.8	-170.8
1.321	900	97.7	66.8	35.4	-50.0	-8.1	-167.3
1.383	950	99.5	55.7	55.7	-54.2	17.9	-161.7
1.449	1000	77.5	61.5	61.5	-63.5	42.4	-154.3
1.523	1050	24.1	-41.8	-41.8	-85.0	74.8	-140.0
1.595	1100	-23.9	-99.1	-31.8	-126.9	-117.4	-106.1
1.668	1150	-61.6	-110.2	-28.7	-152.0	-104.9	-43.2
1.742	1200	-76.3	-122.1	-35.0	177.1	-98.7	7.8
1.814	1250	-91.9	-139.7	-58.8	150.6	-98.5	-11.5
1.887	1300	-125.8	-168.6	-113.4	138.9	-121.1	-31.5
1.960	1350	144.4	142.4	-157.1	92.7	152.4	-71.0
2.033	1400	111.9	97.6	161.4	35.9	132.4	-137.2
2.106	1450	97.2	64.9	73.0	8.8	102.7	-174.7
2.179	1500	74.7	19.7	-13.1	-122.5	.1	-108.3
2.252	1550	-44.6	-84.4	51.9	36.0	-136.8	-123.3
2.325	1600	-169.2	60.6	-99.2	165.9	90.0	-3.7
2.398	1650	155.7	-173.9	154.9	-107.9	-15.0	105.2
2.471	1700	4.4	-87.9				

RED = 60

HEADING = 165. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVEHT)**2

RE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.251	.200	2.802E-01	3.3218E-02	9.379E-01	4.352E-04	5.757E-03	4.717E-06
.329	.250	2.262E-01	3.450E-02	1.009E+00	1.897E-03	1.203E-02	1.537E-05
.414	.300	1.806E-01	3.324E-02	1.023E+00	6.796E-03	2.334E-02	1.002E-04
.505	.350	1.447E-01	2.878E-02	1.017E+00	2.497E-02	4.467E-02	3.78E-04
.603	.400	1.152E-01	2.471E-02	9.86E-01	1.258E-01	7.874E-02	9.702E-04
.707	.450	9.032E-02	2.080E-02	9.734E-01	5.832E-01	1.244E-01	1.975E-03
.817	.500	6.087E-02	1.477E-02	9.347E-01	1.805E-01	1.839E-01	1.036E-03
.934	.550	3.019E-02	4.777E-03	1.333E+00	7.743E-02	2.511E-01	1.065E-03
1.059	.600	2.283E-02	2.837E-03	1.123E+00	4.214E-02	3.195E-01	1.083E-03
1.120	.625	2.663E-02	2.173E-03	1.219E+00	3.245E-02	3.521E-01	1.072E-03
1.185	.650	2.005E-02	1.550E-03	1.283E+00	2.566E-02	3.759E-01	1.048E-03
1.252	.675	1.418E-02	1.030E-03	1.291E+00	2.059E-02	3.831E-01	1.007E-03
1.321	.700	9.130E-03	6.200E-04	1.153E+00	1.657E-02	3.616E-01	9.454E-04
1.391	.725	5.049E-03	3.311E-04	8.66E-01	1.258E-02	3.324E-01	8.308E-04
1.463	.750	2.335E-03	1.826E-04	4.33E-01	9.074E-03	2.121E-01	6.907E-04
1.512	.800	3.336E-04	1.031E-05	5.32E-02	4.384E-03	6.198E-02	4.355E-04
1.565	.850	6.273E-05	2.489E-05	3.707E-04	1.756E-03	8.492E-03	2.194E-04
1.627	.900	2.723E-05	6.024E-05	7.30E-03	5.632E-04	1.448E-05	7.46E-05
1.694	.950	3.829E-05	6.895E-05	5.755E-03	2.757E-04	1.233E-03	1.724E-05
2.268	1.000	3.312E-05	5.36E-05	2.18E-03	2.846E-04	1.243E-03	9.711E-06
2.448	1.050	1.567E-05	2.691E-05	5.42E-04	2.691E-04	5.738E-04	1.561E-05
2.634	1.100	3.672E-06	8.504E-06	8.77E-05	1.676E-04	1.426E-04	1.391E-05
2.827	1.150	3.738E-06	4.112E-06	3.92E-05	6.001E-05	2.396E-05	6.55E-06
3.026	1.200	5.859E-06	3.457E-06	4.16E-06	2.090E-05	2.191E-05	2.014E-06
3.231	1.250	4.291E-06	2.455E-06	3.00E-06	2.059E-05	5.621E-06	1.711E-06
3.442	1.300	2.009E-06	1.324E-06	7.08E-06	1.534E-05	1.064E-06	2.10E-06
3.685	1.400	2.142E-07	1.059E-06	4.47E-07	2.468E-06	8.058E-06	3.83E-07
4.847	1.600	9.746E-08	3.085E-07	2.10E-06	1.349E-06	6.444E-06	1.74E-07
5.909	1.800	5.834E-08	1.171E-07	9.79E-07	5.857E-07	2.687E-06	1.421E-07
7.070	2.000	1.924E-07	5.344E-08	8.46E-07	2.701E-07	2.893E-06	5.59E-08

PHASE (MOTION-WAVEHT)

ME	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
251	200	78.3	89.7	.1	107.3	-85.4	-93.0
329	250	81.7	90.6	.0	119.5	-82.4	-115.0
414	300	82.8	91.5	.0	128.6	-80.6	-155.4
505	350	83.0	92.9	.0	137.4	-78.7	-172.4
608	400	82.8	99.2	-2	155.2	-75.1	-179.5
707	450	82.9	124.4	-4	-129.7	-70.5	-155.2
817	500	83.3	96.2	-4	-73.4	-64.6	-156.8
934	550	84.3	82.2	7	-59.5	-57.1	-169.4
1055	600	86.9	81.9	4.7	-53.0	-47.1	-176.0
1180	650	89.0	81.7	9.1	-50.2	-40.5	-178.0
1303	700	91.7	79.2	16.1	-48.3	-32.7	-179.9
1421	750	95.1	75.5	28.2	-47.2	-23.4	-177.4
1539	800	98.9	73.5	39.7	-47.0	-12.2	-174.4
1653	850	102.6	73.5	57.1	-47.3	1.4	-172.1
1765	900	103.9	69.0	77.0	-46.0	16.5	-170.2
1874	950	91.0	30.0	111.1	-51.6	42.2	-165.5
1984	1000	54.8	-73.1	-5.3	-61.6	58.6	-157.9
2094	1050	-11.9	-94.6	-23.9	-85.9	-2.8	-145.0
2203	1100	-54.9	-106.7	-20.6	-129.0	-96.2	-112.9
2313	1150	-77.9	-120.0	-23.0	-165.6	-93.0	-45.0
2423	1200	-97.4	-136.8	-33.5	173.6	-92.5	8.1
2534	1250	-138.5	-169.8	-74.0	157.2	-102.1	-12.2
2643	1300	143.8	136.3	-123.7	133.5	-151.7	-34.2
2753	1350	91.7	94.0	-139.9	81.4	167.7	-78.2
2863	1400	63.1	59.0	84.8	30.0	164.0	-12.5
2973	1450	-30.5	15.2	79.9	.0	-13.0	-178.9
3083	1500	-144.0	-95.8	-28.0	-125.2	6.0	92.2
3193	1550	161.6	58.1	54.3	40.5	-134.7	-12.0
3303	1600	3.7	174.7	-95.6	167.5	91.5	-3.0
3413	1650		-92.5	157.1	-105.4	-13.6	114.0

PHASE (MOTION-AVEHET)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	78.6	0.0	.1	0.0	-92.1	0.0
.265	.250	81.8	0.0	.2	0.0	-89.9	0.0
.324	.300	82.9	0.0	.0	0.0	-88.0	0.0
.382	.350	83.1	0.0	-.1	0.0	-86.4	0.0
.442	.400	82.5	0.0	-.2	0.0	-84.7	0.0
.503	.450	82.0	0.0	-.3	0.0	-82.5	0.0
.566	.500	81.1	0.0	-.7	0.0	-79.9	0.0
.629	.550	80.3	0.0	-1.7	0.0	-76.6	0.0
.694	.600	79.6	0.0	-4.0	0.0	-75.2	0.0
.728	.625	79.3	0.0	-5.0	0.0	-71.3	0.0
.761	.650	78.9	0.0	-8.8	0.0	-69.1	0.0
.795	.675	78.6	0.0	-12.7	0.0	-66.0	0.0
.829	.700	78.4	0.0	-18.3	0.0	-64.2	0.0
.863	.725	78.1	0.0	-26.1	0.0	-61.4	0.0
.898	.750	77.8	0.0	-36.7	0.0	-58.4	0.0
.933	.800	76.7	0.0	-65.3	0.0	-51.4	0.0
.968	.850	73.0	0.0	-94.1	0.0	-41.9	0.0
1.003	.900	32.4	0.0	-113.5	0.0	-19.2	0.0
1.037	.950	-82.1	0.0	-125.5	0.0	150.1	0.0
1.072	1.000	-81.9	0.0	-129.6	0.0	168.4	0.0
1.107	1.050	-79.1	0.0	-127.4	0.0	-174.5	0.0
1.142	1.100	-72.5	0.0	-135.5	0.0	-155.1	0.0
1.177	1.150	97.3	0.0	-145.3	0.0	-126.3	0.0
1.212	1.200	95.8	0.0	134.2	0.0	40.6	0.0
1.247	1.250	90.7	0.0	144.4	0.0	63.2	0.0
1.282	1.300	81.2	0.0	-177.7	0.0	164.4	0.0
1.317	1.350	-95.0	0.0	-17.0	0.0	20.0	0.0
1.352	1.400	71.4	0.0	140.5	0.0	-112.2	0.0
1.387	1.450	-112.8	0.0	32.3	0.0	12.1	0.0
1.422	1.500	-22.9	0.0	-119.0	0.0		

REC = 62 HEADING = 180. DEG SHIP SPEED = 10. KNOTS
RAO (NOTION/HAVENT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.241	.200	5.157E-01 0.	9.310E-01 0.	9.310E-01 0.	5.586E-03 0.	5.586E-03 0.	5.586E-03 0.
.283	.250	4.477E-01 0.	9.756E-01 0.	9.756E-01 0.	1.327E-02 0.	1.327E-02 0.	1.327E-02 0.
.337	.300	3.894E-01 0.	9.666E-01 0.	9.666E-01 0.	2.629E-02 0.	2.629E-02 0.	2.629E-02 0.
.414	.350	3.359E-01 0.	9.380E-01 0.	9.380E-01 0.	4.790E-02 0.	4.790E-02 0.	4.790E-02 0.
.484	.400	2.847E-01 0.	8.749E-01 0.	8.749E-01 0.	8.036E-02 0.	8.036E-02 0.	8.036E-02 0.
.556	.450	2.348E-01 0.	7.772E-01 0.	7.772E-01 0.	1.233E-01 0.	1.233E-01 0.	1.233E-01 0.
.631	.500	1.862E-01 0.	6.459E-01 0.	6.459E-01 0.	1.706E-01 0.	1.706E-01 0.	1.706E-01 0.
.703	.550	1.407E-01 0.	5.356E-01 0.	5.356E-01 0.	2.289E-01 0.	2.289E-01 0.	2.289E-01 0.
.783	.600	9.926E-02 0.	4.038E-01 0.	4.038E-01 0.	2.668E-01 0.	2.668E-01 0.	2.668E-01 0.
.872	.650	8.057E-02 0.	2.458E-01 0.	2.458E-01 0.	2.803E-01 0.	2.803E-01 0.	2.803E-01 0.
.914	.700	6.355E-02 0.	2.321E-01 0.	2.321E-01 0.	2.849E-01 0.	2.849E-01 0.	2.849E-01 0.
.957	.750	4.843E-02 0.	2.433E-01 0.	2.433E-01 0.	2.782E-01 0.	2.782E-01 0.	2.782E-01 0.
1.001	.800	3.540E-02 0.	1.937E-01 0.	1.937E-01 0.	2.603E-01 0.	2.603E-01 0.	2.603E-01 0.
1.045	.850	2.454E-02 0.	1.844E-01 0.	1.844E-01 0.	2.328E-01 0.	2.328E-01 0.	2.328E-01 0.
1.089	.900	1.593E-02 0.	1.306E-01 0.	1.306E-01 0.	2.007E-01 0.	2.007E-01 0.	2.007E-01 0.
1.133	.950	4.609E-03 0.	7.946E-02 0.	7.946E-02 0.	1.167E-01 0.	1.167E-01 0.	1.167E-01 0.
1.177	1.000	3.923E-04 0.	3.923E-02 0.	3.923E-02 0.	3.739E-02 0.	3.739E-02 0.	3.739E-02 0.
1.221	.800	2.637E-05 0.	3.896E-02 0.	3.896E-02 0.	1.594E-03 0.	1.594E-03 0.	1.594E-03 0.
1.265	.900	2.442E-04 0.	5.335E-02 0.	5.335E-02 0.	6.619E-03 0.	6.619E-03 0.	6.619E-03 0.
1.309	1.000	6.196E-05 0.	3.443E-02 0.	3.443E-02 0.	1.491E-02 0.	1.491E-02 0.	1.491E-02 0.
1.353	1.100	4.389E-05 0.	8.599E-03 0.	8.599E-03 0.	1.107E-02 0.	1.107E-02 0.	1.107E-02 0.
1.397	1.200	2.099E-05 0.	4.139E-04 0.	4.139E-04 0.	3.966E-03 0.	3.966E-03 0.	3.966E-03 0.
1.441	1.300	4.366E-05 0.	3.631E-04 0.	3.631E-04 0.	4.391E-04 0.	4.391E-04 0.	4.391E-04 0.
1.485	1.400	3.277E-05 0.	3.733E-04 0.	3.733E-04 0.	9.358E-05 0.	9.358E-05 0.	9.358E-05 0.
1.529	1.500	7.257E-06 0.	1.309E-05 0.	1.309E-05 0.	2.248E-04 0.	2.248E-04 0.	2.248E-04 0.
1.573	1.600	5.707E-06 0.	2.931E-05 0.	2.931E-05 0.	1.181E-05 0.	1.181E-05 0.	1.181E-05 0.
1.617	1.700	1.723E-06 0.	2.893E-06 0.	2.893E-06 0.	8.297E-07 0.	8.297E-07 0.	8.297E-07 0.
1.661	1.800	6.918E-07 0.	5.715E-06 0.	5.715E-06 0.	9.068E-06 0.	9.068E-06 0.	9.068E-06 0.
1.705	1.900	1.663E-07 0.	1.744E-06 0.	1.744E-06 0.	6.438E-06 0.	6.438E-06 0.	6.438E-06 0.

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
221	200	78.6	0.0	.2	0.0	-90.8	0.0
283	300	81.7	0.0	.2	0.0	-88.5	0.0
347	300	82.9	0.0	.0	0.0	-86.3	0.0
414	350	83.0	0.0	.2	0.0	-84.5	0.0
484	400	82.6	0.0	.3	0.0	-82.4	0.0
556	400	82.0	0.0	.5	0.0	-79.5	0.0
631	500	81.3	0.0	1.2	0.0	-75.9	0.0
709	550	81.0	0.0	2.7	0.0	-71.9	0.0
789	600	80.8	0.0	5.5	0.0	-66.9	0.0
830	625	80.9	0.0	7.5	0.0	-64.0	0.0
872	650	80.9	0.0	10.0	0.0	-60.9	0.0
914	675	81.1	0.0	12.9	0.0	-57.4	0.0
957	700	81.4	0.0	15.2	0.0	-53.5	0.0
1.001	725	81.9	0.0	18.9	0.0	-49.3	0.0
1.045	750	82.8	0.0	24.2	0.0	-44.1	0.0
1.136	800	85.1	0.0	33.5	0.0	-31.4	0.0
1.229	850	85.2	0.0	51.7	0.0	-14.6	0.0
1.325	900	82.7	0.0	82.2	0.0	17.3	0.0
1.424	950	73.9	0.0	85.6	0.0	170.2	0.0
1.525	1.000	79.7	0.0	73.6	0.0	149.6	0.0
1.629	1.050	92.7	0.0	63.6	0.0	134.4	0.0
1.735	1.100	153.1	0.0	85.4	0.0	119.3	0.0
1.844	1.150	109.7	0.0	176.7	0.0	95.4	0.0
1.956	1.200	95.5	0.0	176.4	0.0	48.1	0.0
2.071	1.250	89.4	0.0	164.7	0.0	82.2	0.0
2.187	1.300	82.3	0.0	132.7	0.0	93.7	0.0
2.429	1.400	88.1	0.0	16.1	0.0	105.3	0.0
2.944	1.600	83.0	0.0	80.0	0.0	136.9	0.0
3.501	1.800	153.8	0.0	50.0	0.0	142.0	0.0
4.099	2.000	35.1	0.0	144.2	0.0	29.0	0.0

PHASE (MOTION-WAVEHT)

NE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
2.21	200	79.6	0.0	.2	0.0	-89.4	0.0
2.23	250	81.8	0.0	.1	0.0	-85.7	0.0
2.25	300	82.9	0.0	-.1	0.0	-84.4	0.0
2.27	350	83.0	0.0	-.2	0.0	-82.5	0.0
2.29	400	82.5	0.0	-.3	0.0	-79.9	0.0
2.31	450	82.1	0.0	-.7	0.0	-76.2	0.0
2.33	500	81.9	0.0	-1.6	0.0	-71.9	0.0
2.35	550	82.0	0.0	-3.1	0.0	-66.5	0.0
2.37	600	82.5	0.0	-5.0	0.0	-59.8	0.0
2.39	650	82.9	0.0	-5.7	0.0	-55.9	0.0
2.41	700	83.5	0.0	-6.2	0.0	-51.7	0.0
2.43	750	84.8	0.0	-6.2	0.0	-46.5	0.0
2.45	800	86.4	0.0	-5.1	0.0	-40.3	0.0
2.47	850	88.4	0.0	-2.3	0.0	-33.3	0.0
2.49	900	90.8	0.0	2.2	0.0	-25.2	0.0
2.51	950	95.1	0.0	14.0	0.0	-5.9	0.0
2.53	1000	90.4	0.0	3.7	0.0	18.8	0.0
2.55	1050	-54.8	0.0	-57.9	0.0	74.1	0.0
2.57	1100	-75.1	0.0	-51.0	0.0	-144.5	0.0
2.59	1150	-85.9	0.0	-41.7	0.0	-123.5	0.0
2.61	1200	-97.0	0.0	-44.0	0.0	-109.9	0.0
2.63	1250	-138.4	0.0	-94.6	0.0	-99.2	0.0
2.65	1300	115.9	0.0	-47.1	0.0	-98.1	0.0
2.67	1350	100.7	0.0	-150.8	0.0	111.1	0.0
2.69	1400	91.5	0.0	170.5	0.0	109.2	0.0
2.71	1450	76.5	0.0	69.9	0.0	107.4	0.0
2.73	1500	-81.7	0.0	10.1	0.0	-33.1	0.0
2.75	1550	-75.6	0.0	94.7	0.0	-99.7	0.0
2.77	1600	-173.1	0.0	-58.0	0.0	136.6	0.0
2.79	1650	45.6	0.0	-143.3	0.0	33.1	0.0

REC = 64 HEADING = 180. DEG RAO SHIP SPEED = 20. KNOTS MOTION/WAVEHT**2

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
242	200	3.50E-01 0.	9.94E-01 0.	9.94E-01 0.	5.92E-03 0.	5.92E-03 0.	5.92E-03 0.
315	250	2.87E-01 0.	9.95E-01 0.	9.95E-01 0.	1.32E-02 0.	1.32E-02 0.	1.32E-02 0.
394	300	2.47E-01 0.	9.99E-01 0.	9.99E-01 0.	2.50E-02 0.	2.50E-02 0.	2.50E-02 0.
473	350	1.91E-01 0.	9.99E-01 0.	9.99E-01 0.	4.84E-02 0.	4.84E-02 0.	4.84E-02 0.
553	400	1.59E-01 0.	9.99E-01 0.	9.99E-01 0.	8.36E-02 0.	8.36E-02 0.	8.36E-02 0.
633	450	1.21E-01 0.	9.99E-01 0.	9.99E-01 0.	1.37E-01 0.	1.37E-01 0.	1.37E-01 0.
712	500	9.27E-02 0.	9.99E-01 0.	9.99E-01 0.	1.95E-01 0.	1.95E-01 0.	1.95E-01 0.
792	550	5.50E-02 0.	9.99E-01 0.	9.99E-01 0.	2.50E-01 0.	2.50E-01 0.	2.50E-01 0.
873	600	4.57E-02 0.	9.99E-01 0.	9.99E-01 0.	3.03E-01 0.	3.03E-01 0.	3.03E-01 0.
953	650	3.87E-02 0.	9.99E-01 0.	9.99E-01 0.	3.56E-01 0.	3.56E-01 0.	3.56E-01 0.
1034	700	2.71E-02 0.	9.99E-01 0.	9.99E-01 0.	4.08E-01 0.	4.08E-01 0.	4.08E-01 0.
1113	750	1.95E-02 0.	9.99E-01 0.	9.99E-01 0.	4.60E-01 0.	4.60E-01 0.	4.60E-01 0.
1214	800	1.38E-02 0.	9.99E-01 0.	9.99E-01 0.	5.14E-01 0.	5.14E-01 0.	5.14E-01 0.
1277	850	8.59E-03 0.	9.99E-01 0.	9.99E-01 0.	5.67E-01 0.	5.67E-01 0.	5.67E-01 0.
1341	900	4.28E-03 0.	9.99E-01 0.	9.99E-01 0.	6.20E-01 0.	6.20E-01 0.	6.20E-01 0.
1422	950	5.20E-04 0.	9.99E-01 0.	9.99E-01 0.	6.73E-02 0.	6.73E-02 0.	6.73E-02 0.
1508	1000	3.47E-05 0.	9.99E-01 0.	9.99E-01 0.	7.26E-02 0.	7.26E-02 0.	7.26E-02 0.
1590	1050	2.79E-05 0.	9.99E-01 0.	9.99E-01 0.	7.79E-02 0.	7.79E-02 0.	7.79E-02 0.
1677	1100	5.84E-05 0.	9.99E-01 0.	9.99E-01 0.	8.32E-02 0.	8.32E-02 0.	8.32E-02 0.
1750	1150	5.15E-05 0.	9.99E-01 0.	9.99E-01 0.	8.85E-02 0.	8.85E-02 0.	8.85E-02 0.
1837	1200	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	9.38E-02 0.	9.38E-02 0.	9.38E-02 0.
1910	1250	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	9.91E-02 0.	9.91E-02 0.	9.91E-02 0.
1987	1300	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2060	1350	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2137	1400	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2210	1450	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2287	1500	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2360	1550	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2437	1600	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2510	1650	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2587	1700	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2660	1750	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2737	1800	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2810	1850	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2887	1900	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
2960	1950	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.
3037	2000	1.18E-05 0.	9.99E-01 0.	9.99E-01 0.	1.04E-02 0.	1.04E-02 0.	1.04E-02 0.

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
242	200	78.6	0.0	1.1	0.0	-87.5	0.0
216	200	81.8	0.0	0.0	0.0	-84.5	0.0
234	200	82.9	0.0	1.1	0.0	-82.4	0.0
273	200	83.0	0.0	1.2	0.0	-80.4	0.0
268	200	82.7	0.0	1.4	0.0	-77.3	0.0
257	200	82.5	0.0	1.9	0.0	-73.0	0.0
263	200	82.7	0.0	1.5	0.0	-67.7	0.0
253	200	83.3	0.0	2.1	0.0	-61.0	0.0
275	200	84.5	0.0	1.2	0.0	-52.7	0.0
202	200	85.5	0.0	2.2	0.0	-47.4	0.0
1024	200	87.0	0.0	3.2	0.0	-41.0	0.0
1153	200	90.2	0.0	8.3	0.0	-33.6	0.0
1214	200	92.0	0.0	16.7	0.0	-24.9	0.0
1277	200	96.2	0.0	26.7	0.0	-14.9	0.0
1241	200	99.1	0.0	39.6	0.0	-3.7	0.0
100	200	98.8	0.0	70.0	0.0	23.6	0.0
160	200	62.6	0.0	8.7	0.0	49.0	0.0
170	200	-44.4	0.0	-39.5	0.0	136.2	0.0
187	200	-68.5	0.0	-30.5	0.0	-114.4	0.0
200	200	-80.6	0.0	-39.2	0.0	-103.0	0.0
227	1050	-90.7	0.0	-39.6	0.0	-97.6	0.0
237	1100	-157.4	0.0	-74.0	0.0	-99.9	0.0
233	1150	126.6	0.0	-134.7	0.0	-149.8	0.0
2712	1200	105.6	0.0	-168.3	0.0	-136.3	0.0
283	1250	90.3	0.0	124.5	0.0	126.6	0.0
324	1300	52.1	0.0	57.4	0.0	19.1	0.0
3455	1400	-73.8	0.0	-59.5	0.0	8.9	0.0
4280	1500	-12.0	0.0	87.5	0.0	-102.8	0.0
5202	1800	-12.6	0.0	-74.7	0.0	122.2	0.0
6198	2000	36.2	0.0	-156.5	0.0	27.3	0.0

PHASE (MOTION-WAVEHT)

RE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
233	200	78.6	0.0	1.1	0.0	-85.4	0.0
233	250	81.8	0.0	0.0	0.0	-82.3	0.0
233	300	82.9	0.0	0.0	0.0	-80.6	0.0
233	350	82.9	0.0	1.1	0.0	-78.4	0.0
233	400	82.9	0.0	1.1	0.0	-74.7	0.0
233	450	83.0	0.0	1.1	0.0	-69.9	0.0
233	500	83.0	0.0	1.1	0.0	-63.7	0.0
233	550	84.7	0.0	1.1	0.0	-55.8	0.0
233	600	87.6	0.0	1.1	0.0	-45.1	0.0
233	650	90.0	0.0	1.1	0.0	-38.1	0.0
233	700	93.0	0.0	1.1	0.0	-29.7	0.0
233	750	95.6	0.0	1.1	0.0	-19.7	0.0
233	800	100.4	0.0	1.1	0.0	-7.8	0.0
233	850	104.0	0.0	1.1	0.0	7.1	0.0
233	900	103.0	0.0	1.1	0.0	22.3	0.0
233	950	99.7	0.0	1.1	0.0	47.2	0.0
233	1000	93.6	0.0	1.1	0.0	62.4	0.0
233	1050	80.4	0.0	1.1	0.0	96.8	0.0
233	1100	54.4	0.0	1.1	0.0	92.8	0.0
233	1150	17.3	0.0	1.1	0.0	93.5	0.0
233	1200	12.9	0.0	1.1	0.0	109.6	0.0
233	1250	10.4	0.0	1.1	0.0	174.9	0.0
233	1300	8.9	0.0	1.1	0.0	155.6	0.0
233	1350	4.4	0.0	1.1	0.0	155.6	0.0
233	1400	71.9	0.0	1.1	0.0	23.5	0.0
233	1450	64.9	0.0	1.1	0.0	100.2	0.0
233	1500	173.0	0.0	1.1	0.0	131.9	0.0
233	1550	40.1	0.0	1.1	0.0	30.0	0.0
233	1600	40.1	0.0	1.1	0.0	30.0	0.0
233	1650	40.1	0.0	1.1	0.0	30.0	0.0
233	1700	40.1	0.0	1.1	0.0	30.0	0.0
233	1750	40.1	0.0	1.1	0.0	30.0	0.0
233	1800	40.1	0.0	1.1	0.0	30.0	0.0
233	1850	40.1	0.0	1.1	0.0	30.0	0.0
233	1900	40.1	0.0	1.1	0.0	30.0	0.0
233	1950	40.1	0.0	1.1	0.0	30.0	0.0
233	2000	40.1	0.0	1.1	0.0	30.0	0.0

NO OF DATA

CHTAROV 0025159 LINES PR /42
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9911

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

DE 1040

RAO TABLES

0 -180 @ 15 DEGREES

0 -25 @ 5 KNOTS

DE 1040

NO. OF RECORDS = 65 NO. OF FREQS = 30

REC = 1 HEADING = 0. DEG SHIP SPEED = 5. KNOTS

RAO (MOTION/WAVEVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.433	.200	1.429E+00	9.157E-15	9.886E-01	4.391E-17	4.280E-03	3.669E-17
.234	.250	1.218E+00	8.013E-15	9.693E-01	1.191E-16	1.072E-02	8.824E-17
.215	.300	1.124E+00	7.858E-15	9.370E-01	2.899E-16	2.216E-02	1.882E-16
.318	.350	1.053E+00	8.381E-15	8.936E-01	6.913E-16	4.034E-02	4.416E-16
.333	.400	9.695E-01	9.219E-15	8.311E-01	1.589E-15	6.571E-02	8.058E-16
.297	.450	8.608E-01	7.289E-15	7.428E-01	3.399E-15	9.671E-02	1.223E-15
.434	.500	7.252E-01	5.952E-15	6.296E-01	6.584E-15	1.296E-01	1.648E-15
.471	.550	5.684E-01	4.488E-15	4.978E-01	1.176E-14	1.580E-01	2.011E-15
.503	.600	4.049E-01	3.120E-15	3.593E-01	1.910E-14	1.746E-01	2.227E-15
.522	.625	3.251E-01	2.525E-15	2.923E-01	2.341E-14	1.764E-01	2.253E-15
.539	.650	2.514E-01	2.006E-15	2.296E-01	2.794E-14	1.729E-01	2.215E-15
.555	.675	1.854E-01	1.569E-15	1.730E-01	3.241E-14	1.642E-01	2.111E-15
.571	.700	1.299E-01	1.213E-15	1.239E-01	3.657E-14	1.505E-01	1.942E-15
.587	.725	8.349E-02	9.283E-16	8.347E-02	4.023E-14	1.326E-01	1.716E-15
.602	.750	4.931E-02	7.024E-16	5.206E-02	4.354E-14	1.117E-01	1.450E-15
.622	.800	1.265E-02	3.585E-16	1.477E-02	5.435E-14	6.664E-02	8.901E-16
.640	.850	6.624E-03	7.301E-17	3.999E-03	1.070E-13	2.891E-02	5.085E-16
.687	.900	1.245E-02	3.344E-16	6.733E-03	5.035E-13	6.984E-03	1.393E-15
.713	.950	1.505E-02	6.292E-15	1.129E-02	3.156E-12	3.338E-03	7.800E-15
.737	1.000	1.053E-02	2.503E-15	1.102E-02	9.288E-13	1.079E-02	1.566E-15
.751	1.050	4.191E-03	5.423E-16	6.434E-03	1.681E-13	1.689E-02	1.476E-16
.773	1.100	1.909E-03	1.656E-16	2.328E-03	2.838E-14	1.277E-02	1.263E-17
.823	1.150	3.558E-03	1.498E-16	2.008E-03	2.049E-14	5.068E-03	1.197E-17
.822	1.200	4.870E-03	1.629E-16	3.953E-03	2.997E-14	1.075E-03	6.560E-18
.843	1.250	3.884E-03	1.403E-16	4.458E-03	2.385E-14	4.991E-03	3.813E-18
.855	1.300	2.711E-03	1.143E-16	2.802E-03	1.076E-14	8.463E-03	9.842E-18
.883	1.400	2.965E-03	7.640E-17	2.696E-03	1.008E-14	5.932E-04	1.472E-17
.923	1.500	1.125E-03	3.837E-17	1.417E-03	5.854E-15	4.489E-04	1.268E-17
.949	1.600	3.161E-04	2.167E-17	8.502E-04	2.213E-15	1.732E-03	9.829E-18
.951	2.000	4.601E-04	2.302E-17	2.092E-04	6.834E-16	1.363E-03	7.642E-18

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
183	200	-127.3	-90.2	.1	-103.5	94.0	-170.3
234	250	-119.0	-93.3	.2	-108.9	89.0	-168.9
276	300	-112.0	-93.4	.2	-114.8	87.2	-168.4
318	350	-108.1	-89.3	.1	-121.4	85.0	-170.1
359	400	-106.3	-89.1	.1	-126.8	82.8	-168.5
397	450	-103.2	-89.8	.1	-133.3	80.3	-165.2
434	500	-101.6	-91.3	.3	-132.0	77.6	-161.4
471	550	-100.4	-93.9	.8	-131.9	74.5	-157.1
505	600	-99.7	-98.0	1.6	-130.0	70.9	-152.3
522	625	-99.7	-100.8	2.2	-128.1	68.8	-149.6
533	650	-99.9	-104.2	3.0	-125.6	66.6	-146.6
555	675	-100.5	-108.2	4.2	-122.3	64.2	-143.2
571	700	-101.7	-112.7	5.8	-117.7	64.5	-139.3
587	725	-103.9	-117.6	8.1	-111.7	58.5	-134.6
602	750	-108.0	-122.5	11.6	-103.6	55.2	-128.6
632	800	-130.1	-128.6	26.7	-78.0	46.9	-109.5
660	850	173.0	-110.8	76.5	-35.8	34.4	-63.3
687	900	143.5	22.9	130.8	9.1	6.6	7.0
713	950	133.1	91.3	149.9	83.2	-76.7	87.0
737	1000	145.6	168.5	161.3	154.8	-120.7	163.8
761	1050	167.6	-154.1	175.8	-161.0	-138.6	178.2
782	1100	-133.6	-102.4	-150.9	-114.7	-153.2	140.2
803	1150	-82.2	-47.7	-87.1	-42.3	-174.5	101.6
822	1200	-54.7	-10.4	-51.0	-6.5	105.7	122.2
840	1250	-25.7	24.4	-29.2	17.3	40.5	-164.0
856	1300	17.0	63.4	-1.8	51.3	21.0	-106.5
885	1400	93.6	146.3	101.1	155.9	-53.1	-32.6
928	1500	-80.6	-24.9	-82.1	-24.4	55.5	165.4
943	1600	143.1	-158.6	117.5	175.9	171.7	26.2
957	2000	43.3	74.1	-31.5	81.5	-61.5	-79.8

REC = 2	HEADING =	0. DEG	SHIP SPEED = 10. KNOTS	RAO (MOTION/WAVEVENT)**2	RAO		
WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	1.776E+00	9.341E-15	9.820E-01	4.373E-17	3.394E-03	2.825E-17
.217	.200	1.608E+00	9.615E-15	9.605E-01	1.176E-16	8.968E-03	8.117E-17
.253	.300	1.583E+00	9.705E-15	9.243E-01	2.787E-16	1.895E-02	1.917E-16
.285	.300	1.585E+00	9.437E-15	8.680E-01	6.055E-16	3.421E-02	3.810E-16
.316	.400	1.568E+00	9.778E-15	7.999E-01	1.299E-15	5.592E-02	8.720E-16
.344	.400	1.500E+00	9.189E-15	7.380E-01	2.583E-15	8.189E-02	1.524E-15
.369	.500	1.367E+00	7.898E-15	5.940E-01	4.640E-15	1.084E-01	2.275E-15
.391	.500	1.163E+00	6.211E-15	4.650E-01	7.409E-15	1.302E-01	3.014E-15
.411	.600	9.027E-01	4.446E-15	3.326E-01	1.033E-14	1.413E-01	3.569E-15
.421	.600	7.601E-01	3.632E-15	2.695E-01	1.153E-14	1.412E-01	3.716E-15
.428	.600	6.162E-01	2.906E-15	2.108E-01	1.233E-14	1.370E-01	3.746E-15
.436	.600	4.772E-01	2.293E-15	1.582E-01	1.253E-14	1.288E-01	3.643E-15
.443	.700	3.493E-01	1.806E-15	1.129E-01	1.219E-14	1.167E-01	3.405E-15
.453	.700	2.381E-01	1.446E-15	7.554E-02	1.119E-14	1.017E-01	3.040E-15
.454	.750	1.482E-01	1.202E-15	4.676E-02	9.711E-15	8.468E-02	2.574E-15
.464	.800	2.077E-02	8.476E-16	2.535E-02	6.542E-15	4.942E-02	1.504E-15
.471	.850	4.904E-02	3.476E-16	2.545E-03	5.674E-15	2.074E-02	5.737E-16
.475	.900	7.115E-02	6.520E-16	4.635E-03	-8.737E-15	5.063E-03	2.314E-16
.476	.900	7.115E-02	3.567E-16	7.851E-03	1.333E-14	2.190E-03	3.975E-16
.475	1.000	5.148E-02	1.193E-16	6.921E-03	1.431E-14	5.875E-03	7.520E-16
.471	1.050	3.135E-02	8.476E-17	3.105E-03	9.482E-15	8.453E-03	8.729E-16
.465	1.100	1.532E-02	1.863E-16	4.679E-04	3.261E-15	6.476E-03	7.001E-16
.456	1.150	2.875E-02	2.126E-16	8.149E-04	1.789E-15	2.399E-03	5.739E-16
.444	1.200	5.039E-02	1.264E-16	2.140E-03	4.753E-15	5.629E-04	7.310E-16
.430	1.250	5.436E-02	1.701E-16	1.888E-03	6.006E-15	1.670E-03	8.961E-16
.413	1.300	4.943E-02	4.233E-16	5.158E-04	3.265E-15	2.626E-03	7.259E-16
.371	1.400	8.303E-02	1.736E-16	8.576E-04	2.020E-15	2.522E-04	8.140E-16
.256	1.600	1.813E-01	1.937E-16	4.776E-04	9.912E-16	6.817E-05	1.212E-15
.099	1.800	3.047E+00	5.406E-14	2.340E-04	6.404E-16	5.428E-05	1.481E-14
.100	2.000	1.798E+00	6.612E-14	5.725E-06	8.859E-17	1.440E-04	2.218E-15

PHASE (MOTION-WAVEHT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
179	200	-127.2	-90.7	.2	-108.3	87.9	-158.7
217	250	-117.8	-90.8	.2	-113.5	85.7	-161.1
253	300	-111.8	-91.0	.3	-119.1	85.5	-162.0
286	350	-107.8	-91.6	.3	-124.5	84.1	-161.6
316	400	-104.9	-91.3	.2	-130.0	81.7	-163.0
344	450	-102.8	-92.2	.0	-133.7	79.1	-161.6
369	500	-101.1	-94.2	.1	-135.8	76.2	-159.1
391	550	-98.8	-97.6	.1	-136.3	72.8	-156.0
411	600	-98.9	-103.2	.0	-135.1	68.8	-152.5
420	625	-98.7	-107.1	.1	-133.8	66.5	-150.5
428	650	-98.8	-112.1	.4	-132.0	64.1	-148.3
436	675	-99.2	-118.3	.9	-129.4	61.4	-145.9
443	700	-100.1	-125.9	1.7	-125.9	58.4	-143.2
449	725	-102.0	-135.1	3.1	-121.1	55.1	-140.0
455	750	-105.5	-145.3	5.5	-114.5	51.5	-136.3
464	800	-125.3	-165.8	17.4	-92.3	42.5	-125.9
471	850	175.5	-178.9	67.0	-55.4	29.1	-105.6
475	900	143.3	171.5	125.5	-21.8	.5	-54.9
476	950	138.9	173.6	140.3	-1.7	-78.0	2.7
475	1.000	145.3	-160.8	145.8	11.9	-125.2	30.5
471	1.050	165.5	-101.1	152.7	26.1	-145.7	51.8
455	1.100	-142.0	-65.3	-174.1	53.5	-162.9	79.2
456	1.150	-86.7	-44.6	-82.4	127.2	172.8	120.1
444	1.200	-56.2	-9.0	-66.5	170.6	101.1	161.8
430	1.250	-27.1	53.4	-61.4	-170.6	32.5	-166.8
413	1.300	12.8	85.7	-48.6	-149.4	8.2	-134.6
371	1.400	97.3	135.0	84.9	-31.9	-57.7	-33.5
355	1.500	-82.5	34.6	-117.4	146.9	97.9	153.3
309	1.800	130.1	-100.4	38.0	-40.8	-137.6	-21.7
100	2.000	38.9	59.4	123.6	63.3	-38.5	127.1

REC = 3 HEADING = 0. DEG SHIP SPEED = 15. KNOTS
 PAO (MOTION/WAVEHT)**2

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.158	.200	2.236E+00	1.135E-14	9.767E-01	4.615E-17	2.593E-03	1.609E-17
.201	.200	2.172E+00	1.228E-14	9.531E-01	1.241E-16	7.335E-03	5.768E-17
.229	.300	2.306E+00	1.279E-14	9.117E-01	2.921E-16	1.582E-02	1.472E-16
.254	.300	2.510E+00	1.324E-14	8.541E-01	6.247E-16	2.943E-02	3.524E-16
.274	.400	2.719E+00	1.313E-14	7.729E-01	1.224E-15	4.683E-02	7.050E-16
.291	.400	2.879E+00	1.255E-14	6.707E-01	2.209E-15	6.761E-02	1.307E-15
.303	.500	2.934E+00	1.153E-14	5.548E-01	3.717E-15	8.916E-02	2.361E-15
.312	.500	2.830E+00	9.753E-15	4.268E-01	5.518E-15	1.061E-01	3.629E-15
.316	.600	2.530E+00	7.616E-15	2.995E-01	7.093E-15	1.137E-01	4.903E-15
.317	.600	2.304E+00	6.584E-15	2.386E-01	7.266E-15	1.129E-01	5.438E-15
.317	.600	2.032E+00	5.676E-15	1.838E-01	7.709E-15	1.086E-01	5.839E-15
.316	.675	1.724E+00	4.955E-15	1.354E-01	7.407E-15	1.014E-01	6.056E-15
.314	.700	1.394E+00	4.473E-15	9.444E-02	6.832E-15	9.130E-02	6.048E-15
.311	.725	1.059E+00	4.248E-15	6.155E-02	5.854E-15	7.900E-02	5.788E-15
.307	.750	7.429E-01	4.266E-15	3.676E-02	4.648E-15	6.538E-02	5.277E-15
.296	.800	2.587E-01	4.754E-15	8.989E-03	2.206E-15	3.798E-02	3.656E-15
.281	.800	1.121E-01	5.280E-15	2.124E-03	8.351E-16	1.632E-02	1.779E-15
.262	.900	3.724E-01	5.026E-15	4.195E-03	1.118E-15	4.310E-03	3.214E-16
.239	.900	9.033E-01	3.051E-15	5.998E-03	2.203E-15	1.375E-03	1.163E-16
.212	1.000	1.763E+00	6.816E-16	4.354E-03	2.305E-15	3.246E-03	1.339E-15
.182	1.000	1.376E+00	1.849E-15	1.357E-03	2.073E-15	5.151E-03	2.858E-15
.147	1.100	1.196E+00	1.182E-14	1.256E-04	5.054E-16	4.695E-03	2.997E-15
.103	1.100	5.055E+00	3.255E-14	1.075E-03	1.647E-17	2.699E-03	1.362E-15
.065	1.200	6.668E+01	8.267E-14	1.998E-03	7.145E-16	9.955E-04	9.241E-16
.019	1.200	9.783E+03	6.651E-12	1.376E-03	1.245E-15	1.099E-03	6.897E-15
.031	1.300	1.068E+03	7.064E-12	5.753E-05	6.971E-16	1.779E-03	3.240E-14
.143	1.400	3.157E+00	2.816E-15	8.276E-04	6.675E-16	4.430E-04	1.548E-15
.416	1.600	2.661E-02	3.115E-17	7.165E-04	3.468E-15	4.300E-05	5.718E-16
.751	1.800	8.596E-04	1.372E-16	6.766E-04	7.350E-14	6.986E-04	8.455E-17
.1150	2.000	2.060E-04	7.774E-18	1.323E-03	1.691E-16	1.126E-03	5.120E-18

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
189	200	-127.1	-91.2	.2	-113.8	82.7	-138.7
201	250	-117.7	-91.3	.2	-119.1	82.8	-148.1
229	300	-111.6	-91.7	.2	-124.6	83.1	-150.1
254	350	-107.5	-92.4	.2	-129.8	81.9	-153.0
274	400	-104.5	-93.7	.1	-134.3	80.4	-153.6
291	450	-102.1	-95.6	.0	-137.9	78.2	-153.6
303	500	-100.3	-98.4	.4	-140.5	75.2	-153.2
312	550	-98.8	-103.2	.7	-141.8	71.7	-151.7
316	600	-97.6	-111.2	.9	-141.9	67.8	-149.7
317	625	-97.2	-116.8	.9	-141.4	65.6	-148.5
317	650	-97.0	-123.8	.7	-140.7	63.2	-147.3
316	675	-97.0	-132.3	.4	-139.5	60.6	-146.0
314	700	-97.5	-142.2	.4	-137.8	57.8	-144.8
311	725	-98.7	-152.9	1.7	-135.4	54.8	-143.5
317	750	-101.1	-163.6	4.2	-132.0	51.5	-142.2
296	800	-115.7	178.0	18.1	-119.3	43.4	-140.0
281	850	-172.6	165.1	73.5	-83.7	31.4	-137.4
282	900	146.2	158.7	122.7	-29.4	7.3	-127.6
239	950	140.3	159.2	134.3	-5.9	-61.3	26.1
222	1000	146.0	-173.6	138.1	3.5	-114.0	43.3
182	1050	162.9	-74.9	145.0	8.8	-133.5	50.7
147	1100	-153.0	-58.1	-139.2	14.7	-146.7	60.9
108	1150	-87.7	-52.6	-79.7	149.8	-161.7	83.1
656	1200	-51.3	-37.3	-79.5	-175.2	167.3	147.8
613	1250	-21.8	7.4	-101.1	-173.8	122.9	133.6
501	1300	14.6	70.6	-141.3	-175.1	60.3	172.0
443	1400	93.7	135.5	80.4	-19.7	-12.6	-28.8
416	1600	-82.6	24.6	-112.8	143.3	49.3	154.2
351	1800	141.9	141.8	92.4	135.9	156.7	119.8
1150	2000	44.3	87.5	7.6	102.7	-38.0	-67.4

REC = 4 HEADING = 0. DEG SHIP SPEED = 20. KNOTS RAO (MOTION/WAVEHT)**2 YAW

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.158	.200	2.860E+00	1.471E-14	9.758E-01	5.037E-17	1.976E-03	1.042E-17
.184	.250	3.011E+00	1.692E-14	9.484E-01	1.374E-16	5.847E-03	3.316E-17
.205	.300	3.505E+00	1.927E-14	9.064E-01	3.263E-16	1.312E-02	9.769E-17
.221	.350	4.236E+00	2.154E-14	8.429E-01	6.958E-16	2.422E-02	2.415E-16
.232	.400	5.180E+00	2.367E-14	7.579E-01	1.345E-15	3.910E-02	5.355E-16
.237	.450	6.321E+00	2.551E-14	6.534E-01	2.372E-15	5.659E-02	1.089E-15
.277	.500	7.625E+00	2.672E-14	5.315E-01	3.761E-15	7.379E-02	1.983E-15
.282	.550	9.025E+00	2.724E-14	4.008E-01	5.318E-15	8.708E-02	3.269E-15
.282	.600	1.033E+01	2.726E-14	2.746E-01	6.670E-15	9.319E-02	4.991E-15
.285	.625	1.097E+01	2.730E-14	2.169E-01	7.104E-15	9.271E-02	5.971E-15
.285	.650	1.149E+01	2.763E-14	1.647E-01	7.277E-15	8.966E-02	6.944E-15
.197	.675	1.185E+01	2.855E-14	1.192E-01	7.131E-15	8.415E-02	7.817E-15
.185	.700	1.205E+01	3.050E-14	8.127E-02	6.637E-15	7.653E-02	8.468E-15
.173	.725	1.205E+01	3.398E-14	5.145E-02	5.895E-15	6.735E-02	8.756E-15
.159	.750	1.167E+01	4.037E-14	3.017E-02	4.838E-15	5.718E-02	9.005E-15
.123	.800	1.033E+01	6.943E-14	8.022E-03	2.497E-15	3.664E-02	7.985E-15
.091	.850	1.065E+01	1.820E-13	4.909E-03	6.219E-16	1.949E-02	5.975E-15
.049	.900	1.797E+02	1.532E-12	8.873E-03	4.522E-17	9.378E-03	7.735E-15
.014	.950	4.539E+04	2.302E-10	9.237E-03	5.933E-16	5.642E-03	1.150E-13
.050	1.000	3.710E+02	7.436E-13	3.518E-03	1.835E-15	2.295E-03	1.533E-15
.108	1.050	1.072E+01	4.322E-15	7.762E-04	1.952E-15	4.660E-03	1.988E-15
.171	1.100	6.795E-01	7.074E-15	2.636E-04	7.165E-16	4.274E-03	1.452E-15
.239	1.150	2.825E-01	2.024E-15	1.672E-03	1.237E-16	1.738E-03	5.565E-16
.312	1.200	1.842E-01	4.996E-16	1.853E-03	1.918E-15	2.246E-04	7.366E-16
.391	1.250	7.802E-02	5.123E-16	1.744E-03	5.491E-15	1.029E-03	8.677E-16
.473	1.300	2.907E-02	3.894E-16	8.058E-04	6.354E-15	2.165E-03	5.051E-16
.559	1.400	9.465E-03	8.842E-17	1.173E-03	9.108E-14	1.823E-04	6.314E-16
1.089	1.500	5.825E-04	1.334E-17	1.300E-03	1.661E-15	3.436E-04	1.187E-17
1.602	1.600	4.745E-05	1.710E-18	1.228E-04	1.456E-17	6.789E-04	1.323E-18
2.200	2.000	1.337E-05	1.578E-19	5.424E-05	8.423E-19	1.867E-05	2.982E-19

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	-127.1	-91.7	.1	-118.3	72.1	-109.2
.184	.150	-117.5	-91.9	.1	-123.9	76.9	-120.6
.205	.100	-111.3	-92.3	.0	-129.5	78.2	-130.2
.221	.150	-107.1	-93.2	.1	-134.5	78.5	-134.5
.232	.400	-103.9	-94.6	.3	-138.8	77.6	-137.3
.237	.450	-101.4	-96.8	.6	-142.3	75.8	-139.0
.237	.200	-99.3	-100.1	-1.0	-144.9	73.4	-139.4
.232	.550	-97.4	-105.0	-1.3	-146.8	70.6	-133.9
.222	.600	-95.8	-112.4	-1.5	-148.0	67.2	-138.0
.215	.625	-95.2	-117.3	-1.5	-148.4	65.3	-137.4
.206	.650	-94.6	-123.1	-1.2	-148.6	63.3	-136.7
.197	.675	-94.2	-129.9	.9	-148.7	61.3	-135.8
.185	.700	-94.1	-137.5	.9	-148.5	59.3	-135.0
.173	.725	-94.5	-145.4	3.5	-147.9	57.5	-134.2
.159	.750	-95.9	-154.3	7.7	-145.6	54.9	-133.2
.128	.800	-104.8	-171.1	31.4	-137.4	49.9	-131.4
.091	.850	-142.8	173.3	84.2	-40.1	43.2	-130.1
.049	.900	165.9	157.4	107.9	7.8	33.1	-132.2
.014	.950	155.2	143.0	105.2	9.8	5.8	-132.8
.003	1.000	151.3	135.9	119.1	9.9	-74.9	179.2
.108	1.050	163.3	-94.0	145.1	19.8	-119.8	59.1
.171	1.100	-152.4	-57.2	-128.6	119.8	-141.0	66.2
.239	1.150	-88.9	-36.6	-85.4	169.5	-163.9	110.1
.312	1.200	-56.3	16.5	-72.4	173.0	128.4	165.2
.391	1.250	-27.1	73.8	-59.4	-173.0	35.6	-162.2
.475	1.300	13.2	102.5	-31.4	-147.0	14.1	-129.6
.658	1.400	97.5	-47.5	91.6	-19.7	-60.5	-19.1
1.088	1.600	-79.6	-10.2	-53.6	-20.3	54.3	174.5
1.602	1.800	143.0	-113.7	-33.9	-159.5	-116.8	58.2
2.200	2.000	26.7	90.0	141.5	150.3	23.7	-24.0

REC = 5

HEADING = 0. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.147	.200	3.722E+00	1.983E-14	9.816E-01	5.521E-17	1.716E-03	1.182E-17
.163	.250	4.305E+00	2.526E-14	9.504E-01	1.530E-16	4.729E-03	3.273E-17
.182	.300	5.412E+00	3.265E-14	9.064E-01	3.577E-16	1.071E-02	7.697E-17
.199	.350	7.779E+00	4.288E-14	8.427E-01	7.906E-16	2.033E-02	1.738E-16
.190	.400	1.126E+01	5.782E-14	7.561E-01	1.533E-15	3.233E-02	3.912E-16
.430	.450	1.704E+01	8.190E-14	6.474E-01	2.682E-15	4.629E-02	7.908E-16
.172	.500	2.725E+01	1.244E-13	5.205E-01	4.203E-15	5.951E-02	1.456E-15
.153	.550	4.733E+01	2.154E-13	3.915E-01	6.022E-15	7.013E-02	2.704E-15
.127	.600	9.555E+01	4.678E-13	2.622E-01	7.515E-15	7.431E-02	4.903E-15
.112	.625	1.497E+02	7.998E-13	2.018E-01	7.854E-15	7.398E-02	6.922E-15
.095	.650	2.582E+02	1.531E-12	1.527E-01	8.137E-15	7.037E-02	1.112E-14
.077	.675	5.319E+02	3.659E-12	1.079E-01	7.991E-15	6.529E-02	2.037E-14
.057	.700	1.521E+03	1.221E-11	6.755E-02	6.907E-15	6.542E-02	4.431E-14
.035	.725	7.959E+03	8.488E-11	4.219E-02	6.434E-15	3.989E-02	1.494E-13
.014	.750	2.211E+05	2.688E-09	2.151E-02	4.496E-15	5.988E-02	9.162E-13
.040	.800	1.318E+03	1.393E-11	1.101E-02	2.850E-15	3.960E-02	3.178E-14
.093	.850	7.749E+00	1.277E-13	7.575E-03	6.916E-16	2.101E-02	2.602E-15
.163	.900	1.060E+00	2.251E-14	6.328E-03	3.919E-16	5.592E-03	4.233E-16
.235	.950	9.598E-01	2.837E-15	5.448E-03	2.378E-15	9.446E-04	7.814E-17
.313	1.000	3.106E-01	2.493E-16	4.139E-03	5.632E-15	2.494E-03	6.917E-16
.397	1.050	6.229E-02	4.422E-16	2.658E-03	7.646E-15	4.867E-03	8.792E-16
.438	1.100	1.275E-02	3.453E-16	1.403E-03	5.941E-15	4.377E-03	5.304E-16
.585	1.150	1.149E-02	9.202E-17	1.439E-03	1.151E-14	1.622E-03	3.563E-16
.590	1.200	9.565E-03	8.938E-16	2.383E-03	4.877E-13	3.448E-04	1.509E-15
.801	1.250	4.757E-03	2.021E-16	3.825E-03	4.833E-14	2.164E-03	4.022E-18
.914	1.300	2.097E-03	7.406E-17	5.581E-03	5.893E-15	4.187E-03	1.542E-17
1.172	1.400	9.188E-04	1.368E-17	3.538E-03	1.119E-15	1.186E-04	1.356E-17
1.760	1.600	8.089E-05	5.617E-19	4.211E-04	5.072E-17	2.195E-04	1.666E-18
2.452	1.800	9.206E-06	1.256E-19	1.093E-05	3.757E-18	1.000E-04	6.992E-20
3.251	2.000	4.756E-06	1.505E-20	1.326E-05	6.133E-19	2.513E-05	4.597E-20

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.147	.200	-127.0	-92.3	-1	-121.6	54.6	-73.2
.163	.250	-117.3	-92.3	-2	-126.9	66.8	-76.6
.182	.300	-111.0	-92.8	-3	-132.4	70.7	-88.5
.183	.350	-106.7	-93.6	-6	-137.3	71.9	-96.5
.190	.400	-103.3	-94.8	-10	-141.3	71.8	-99.9
.184	.450	-100.6	-95.4	-15	-144.4	71.0	-99.6
.172	.500	-98.1	-96.4	-19	-146.6	69.8	-95.0
.153	.550	-95.9	-100.8	-25	-148.4	66.8	-88.9
.127	.600	-93.9	-102.5	-26	-149.5	65.0	-75.0
.112	.625	-92.7	-102.9	-20	-149.9	65.0	-64.3
.093	.650	-92.0	-103.3	-20	-150.1	62.1	-54.9
.077	.675	-91.3	-103.2	-9	-150.3	60.7	-43.3
.057	.700	-90.7	-102.1	4.6	-150.9	65.2	-30.0
.033	.725	-91.1	-102.5	.7	-150.1	54.4	-22.8
.014	.750	-92.1	-102.0	30.2	-152.5	71.5	-15.1
.040	.800	-101.0	-119.5	53.1	-151.5	58.2	-41.5
.093	.850	-113.8	-173.4	82.1	-136.8	49.0	-119.8
.163	.900	-152.0	-151.2	107.9	-35.6	29.3	-144.2
.235	.950	-140.5	-157.6	127.1	-5.2	-35.4	43.0
.313	1.000	-145.2	-133.7	144.0	6.7	-111.5	45.4
.397	1.050	-164.8	-63.7	155.8	23.9	-135.8	60.8
.488	1.100	-141.7	-37.2	-154.4	55.8	-150.6	85.7
.585	1.150	-85.9	2.0	-93.7	127.0	-171.7	127.9
.690	1.200	-55.6	-167.0	-56.7	-144.7	105.7	-146.3
.801	1.250	-25.5	12.8	-16.8	4.8	43.8	-43.6
.918	1.300	17.4	71.7	24.3	51.5	31.1	-99.1
1.172	1.400	101.2	162.3	128.6	164.8	-42.3	-13.5
1.760	1.600	-77.5	10.5	2.1	-16.2	113.1	-172.1
2.452	1.800	144.2	-135.0	111.0	138.1	-81.4	22.2
3.250	2.000	38.4	90.0	-164.6	90.0	49.6	-57.8

REC = 6

HEADING = 15. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)**2

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.191	.200	1.358E+00	7.296E-02	9.894E-01	3.934E-04	3.972E-03	3.072E-04
.234	.250	1.146E+00	7.172E-02	9.713E-01	1.065E-03	9.974E-03	7.368E-04
.277	.303	1.053E+00	7.037E-02	9.409E-01	2.572E-03	2.068E-02	1.567E-03
.319	.350	9.856E-01	7.561E-02	9.019E-01	6.127E-03	3.782E-02	3.713E-03
.353	.400	9.091E-01	7.448E-02	8.428E-01	1.400E-02	6.194E-02	6.768E-03
.399	.450	8.117E-01	6.699E-02	7.597E-01	2.981E-02	9.180E-02	1.029E-02
.437	.500	6.903E-01	5.508E-02	6.518E-01	5.872E-02	1.242E-01	1.394E-02
.473	.550	5.494E-01	4.234E-02	5.245E-01	1.065E-01	1.534E-01	1.718E-02
.509	.600	3.938E-01	3.023E-02	3.977E-01	1.770E-01	1.725E-01	1.831E-02
.526	.625	3.267E-01	2.447E-02	3.205E-01	2.203E-01	1.761E-01	1.974E-02
.543	.650	2.576E-01	2.012E-02	2.566E-01	2.677E-01	1.749E-01	1.964E-02
.559	.675	1.947E-01	1.603E-02	1.979E-01	3.172E-01	1.687E-01	1.898E-02
.576	.700	1.398E-01	1.201E-02	1.465E-01	3.665E-01	1.574E-01	1.775E-02
.592	.725	9.419E-02	9.763E-03	1.029E-01	4.134E-01	1.417E-01	1.598E-02
.607	.750	5.863E-02	7.415E-03	6.673E-02	4.577E-01	1.224E-01	1.375E-02
.633	.800	1.679E-02	3.611E-03	2.166E-02	5.711E-01	7.858E-02	8.578E-03
.667	.850	5.795E-03	4.116E-04	5.189E-03	8.923E-01	3.888E-02	3.568E-03
.695	.900	9.705E-03	2.607E-03	5.255E-03	2.590E+00	1.183E-02	4.924E-03
.721	.950	1.371E-02	1.248E-02	1.032E-02	4.459E+00	2.879E-03	9.152E-03
.746	1.000	1.139E-02	9.138E-03	1.209E-02	2.615E+00	8.085E-03	4.209E-03
.770	1.050	5.472E-03	3.823E-03	8.652E-03	9.435E-01	1.613E-02	1.207E-03
.793	1.100	1.818E-03	1.214E-03	3.794E-03	2.304E-01	1.656E-02	3.778E-04
.815	1.150	2.262E-03	9.701E-04	1.828E-03	9.161E-02	8.690E-03	1.902E-04
.835	1.200	4.085E-03	1.144E-03	3.192E-03	1.551E-01	1.646E-03	9.573E-05
.854	1.250	3.951E-03	1.059E-03	4.636E-03	1.685E-01	2.869E-03	7.201E-05
.871	1.300	2.655E-03	8.876E-04	3.242E-03	9.833E-02	7.986E-03	1.153E-04
.903	1.400	2.605E-03	6.779E-04	1.792E-03	5.594E-02	2.075E-03	1.615E-04
.931	1.600	1.219E-03	3.775E-04	1.245E-03	3.591E-02	8.003E-04	1.361E-04
.978	1.800	4.493E-04	1.623E-04	7.289E-04	2.246E-02	5.814E-04	1.149E-04
.986	2.000	1.982E-04	1.671E-04	3.381E-04	5.724E-03	1.622E-03	7.241E-05

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SNAY	HEAVE	ROLL	PITCH	YAW
.190	.200	-128.2	89.8	.1	77.3	91.1	9.6
.234	.250	-118.7	89.8	.2	72.1	89.1	11.1
.277	.300	-112.7	89.6	.2	66.6	87.4	11.6
.319	.350	-108.7	90.8	.1	60.2	85.2	9.5
.359	.400	-105.8	91.0	.0	55.1	83.0	11.1
.399	.450	-103.7	90.4	.1	51.8	80.6	14.4
.437	.500	-102.1	89.9	.2	50.4	78.0	18.3
.473	.550	-100.9	86.6	.6	50.8	75.0	22.6
.509	.600	-100.2	83.0	1.4	53.1	71.5	27.4
.526	.625	-100.1	80.5	1.9	55.2	69.6	30.1
.543	.650	-100.2	77.7	2.6	58.0	67.5	33.1
.559	.675	-100.6	74.4	3.6	61.6	65.2	36.5
.576	.700	-101.6	70.7	4.9	66.4	62.6	40.5
.592	.725	-103.3	66.9	6.8	72.7	59.8	45.2
.607	.750	-106.4	63.3	9.6	81.0	56.7	51.1
.633	.800	-122.4	61.1	20.7	107.2	49.1	69.7
.667	.850	-171.7	77.4	56.6	155.6	38.4	115.7
.695	.900	147.4	-108.4	120.0	-143.4	18.1	-151.6
.721	.950	139.2	-61.9	146.1	-79.7	-47.0	-82.2
.746	1.000	141.3	-24.4	158.6	-33.9	-111.3	-46.0
.770	1.050	155.8	7.2	171.1	-3.1	-132.9	-38.2
.793	1.100	-150.8	53.0	-165.8	33.3	-147.3	-50.2
.815	1.150	-97.2	110.2	-111.8	103.8	-153.8	-57.6
.835	1.200	-65.4	150.3	-62.0	153.2	-153.3	-36.9
.854	1.250	-40.1	-175.2	-36.3	178.8	56.3	15.5
.871	1.300	-4.9	-136.8	-12.7	-154.1	29.1	63.2
.893	1.400	82.0	-57.9	-78.8	-48.6	-12.2	137.2
.911	1.500	-105.7	121.9	-108.9	131.3	137.9	-35.0
.928	1.600	94.7	-27.3	91.9	-33.2	-149.3	175.7
.945	2.000	2.3	-141.8	-60.6	-177.7	-33.2	54.8

REC = 7 HEADING = 15. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVERT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	1.674E+00	8.312E-02	9.929E-01	3.913E-04	3.127E-03	2.379E-04
.218	.250	1.497E+00	8.537E-02	9.625E-01	1.050E-03	8.304E-03	6.742E-04
.254	.300	1.463E+00	8.625E-02	9.285E-01	2.481E-03	1.764E-02	1.591E-03
.288	.350	1.459E+00	8.417E-02	8.753E-01	5.384E-03	3.198E-02	3.177E-03
.319	.400	1.441E+00	8.809E-02	8.121E-01	1.157E-02	5.270E-02	7.355E-03
.347	.450	1.381E+00	8.327E-02	7.252E-01	2.309E-02	7.780E-02	1.280E-02
.373	.500	1.265E+00	7.222E-02	6.162E-01	4.190E-02	1.041E-01	1.911E-02
.397	.550	1.089E+00	5.778E-02	4.911E-01	6.807E-02	1.267E-01	2.547E-02
.417	.600	8.500E-01	4.228E-02	3.602E-01	9.747E-02	1.400E-01	3.052E-02
.427	.625	7.336E-01	3.435E-02	2.968E-01	1.106E-01	1.416E-01	3.205E-02
.436	.650	6.347E-01	2.829E-02	2.369E-01	1.206E-01	1.392E-01	3.267E-02
.444	.675	4.894E-01	2.221E-02	1.922E-01	1.259E-01	1.229E-01	3.221E-02
.451	.700	3.600E-01	1.774E-02	1.340E-01	1.254E-01	1.227E-01	3.060E-02
.453	.725	2.546E-01	1.404E-02	9.337E-02	1.187E-01	1.033E-01	2.795E-02
.465	.750	1.665E-01	1.135E-02	6.074E-02	1.064E-01	9.348E-02	2.422E-02
.475	.800	5.178E-02	8.410E-03	1.906E-02	7.447E-02	5.877E-02	1.532E-02
.484	.850	1.725E-02	7.126E-03	3.510E-03	5.730E-02	2.796E-02	6.963E-03
.489	.900	3.424E-02	5.691E-03	3.301E-03	7.851E-02	8.461E-03	2.423E-03
.492	.950	5.886E-02	3.422E-03	7.079E-03	1.275E-01	2.110E-03	2.732E-03
.493	1.000	5.921E-02	1.234E-03	7.761E-03	1.552E-01	4.501E-03	5.695E-03
.491	1.050	3.565E-02	4.739E-04	4.619E-03	1.251E-01	8.107E-03	7.556E-03
.486	1.100	1.452E-02	1.092E-03	1.159E-03	5.659E-02	7.762E-03	6.620E-03
.479	1.150	1.699E-02	1.695E-03	3.824E-04	1.756E-02	3.948E-03	4.905E-03
.470	1.200	3.511E-02	1.222E-03	1.685E-03	3.657E-02	8.813E-04	5.290E-03
.453	1.250	4.450E-02	8.124E-04	2.270E-03	6.473E-02	1.039E-03	7.095E-03
.443	1.300	3.981E-02	2.155E-03	1.148E-03	5.110E-02	2.486E-03	6.932E-03
.406	1.400	5.478E-02	2.500E-03	5.163E-04	1.458E-02	7.094E-04	5.075E-03
.302	1.600	1.028E-01	2.274E-03	3.193E-04	5.500E-03	2.423E-04	4.515E-03
.157	1.800	6.916E-01	8.712E-03	2.845E-04	5.433E-03	4.731E-05	3.255E-02
.028	2.000	1.522E+02	1.113E+02	1.527E-04	5.700E-03	9.652E-05	1.348E+00

PHASE (MOTION-WAVEHT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	-128.1	89.3	.2	72.4	87.8	21.0
.210	.250	-118.6	89.3	.2	67.5	86.7	18.9
.254	.300	-112.5	89.0	.3	62.0	85.5	17.8
.288	.350	-108.4	88.5	.3	56.7	84.2	18.2
.319	.400	-105.5	88.9	.1	51.3	81.8	16.5
.347	.450	-103.3	88.1	.0	47.6	79.3	17.9
.372	.500	-101.6	86.3	.1	45.5	75.5	20.4
.397	.550	-100.3	83.2	.2	45.0	73.2	23.4
.417	.600	-99.4	78.2	.2	46.0	69.4	26.9
.427	.625	-99.2	74.8	.1	47.1	67.2	28.8
.436	.650	-99.1	70.4	.1	48.8	64.9	30.9
.444	.675	-99.4	65.0	.5	51.1	62.3	33.2
.451	.700	-100.1	58.3	1.1	54.2	59.5	35.8
.458	.725	-101.6	50.3	2.1	58.3	56.4	38.7
.465	.750	-104.2	41.0	3.7	64.0	52.9	42.1
.475	.800	-118.4	28.5	11.8	82.6	44.6	51.3
.484	.850	-168.1	3.2	44.0	115.9	32.9	67.7
.492	.900	-147.2	-7.3	115.3	152.3	11.5	107.1
.493	.950	-137.8	-9.6	138.0	175.4	-49.7	169.5
.491	1.000	-141.0	2.4	144.8	-169.9	-114.7	-157.4
.485	1.050	-154.7	56.6	149.9	-157.0	-139.7	-136.3
.479	1.100	-157.2	100.6	165.3	-137.6	-155.9	-112.8
.470	1.150	-104.0	126.7	-186.2	-83.0	-176.6	-77.3
.458	1.200	-67.9	150.5	-69.8	-19.4	139.9	-33.6
.443	1.250	-41.2	-152.9	-62.9	4.0	50.0	.9
.406	1.300	-7.6	-104.8	-56.3	21.5	16.2	30.2
.302	1.400	78.4	-65.8	78.2	127.2	-23.9	124.6
.157	1.500	-108.1	83.2	-120.1	-46.5	133.8	-46.4
.028	1.600	96.2	115.9	43.4	144.7	-70.5	160.0
	2.000	-19.4	-111.1	174.6	-62.6	57.0	-26.4

REC = 8 HEADING = 15. DEG SHIP SPEED = 15. KNOTS MOTION/HAVENT**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	2.088E+00	9.999E-02	9.776E-01	4.116E-04	2.366E-03	1.345E-04
.250	.250	1.997E+00	1.079E-01	9.554E-01	1.103E-03	6.762E-03	4.821E-04
.232	.300	2.097E+00	1.122E-01	9.162E-01	2.389E-03	1.467E-02	1.227E-03
.237	.350	2.263E+00	1.160E-01	8.616E-01	5.328E-03	2.718E-02	2.913E-03
.278	.400	2.436E+00	1.149E-01	7.841E-01	1.084E-02	4.392E-02	5.779E-03
.296	.450	2.567E+00	1.117E-01	6.887E-01	1.995E-02	6.430E-02	1.136E-02
.310	.500	2.611E+00	1.033E-01	5.775E-01	3.399E-02	8.573E-02	2.030E-02
.330	.550	2.522E+00	8.812E-02	4.529E-01	5.140E-02	1.035E-01	3.112E-02
.335	.600	2.270E+00	6.950E-02	3.256E-01	6.788E-02	1.130E-01	4.224E-02
.328	.625	2.079E+00	6.023E-02	2.650E-01	7.367E-02	1.134E-01	4.709E-02
.329	.650	1.850E+00	5.180E-02	2.086E-01	7.663E-02	1.107E-01	5.094E-02
.328	.675	1.589E+00	4.476E-02	1.578E-01	7.638E-02	1.049E-01	5.335E-02
.327	.700	1.308E+00	3.957E-02	1.138E-01	7.170E-02	9.611E-02	5.395E-02
.325	.725	1.019E+00	3.651E-02	7.742E-02	6.371E-02	8.494E-02	5.247E-02
.322	.750	7.403E-01	3.560E-02	4.888E-02	5.291E-02	7.209E-02	4.880E-02
.313	.800	2.885E-01	3.861E-02	1.407E-02	2.651E-02	4.481E-02	3.571E-02
.300	.850	9.009E-02	4.250E-02	2.529E-03	1.130E-02	2.140E-02	1.893E-02
.284	.900	2.084E-01	4.006E-02	3.073E-03	9.050E-03	6.813E-03	5.320E-03
.253	.950	5.663E-01	2.877E-02	5.644E-03	1.048E-02	1.569E-03	2.081E-04
.239	1.000	9.198E-01	9.777E-03	5.204E-03	2.839E-02	2.430E-03	6.797E-03
.211	1.050	9.831E-01	4.770E-03	2.376E-03	2.488E-02	4.601E-03	1.950E-02
.190	1.100	7.339E-01	4.197E-02	2.897E-04	1.094E-02	4.952E-03	2.472E-02
.154	1.150	1.235E+00	1.263E-01	5.224E-04	6.878E-04	3.237E-03	1.635E-02
.104	1.200	8.829E+00	1.954E-01	1.682E-03	3.230E-03	1.283E-03	8.699E-03
.051	1.250	9.511E+01	5.479E-01	1.624E-03	1.099E-02	5.883E-04	2.973E-02
.014	1.300	2.379E+04	5.206E+02	3.296E-04	9.197E-03	1.943E-03	5.766E-01
.091	1.400	1.640E+01	5.776E-01	6.597E-04	1.934E-03	1.178E-03	2.946E-03
.337	1.600	5.987E-02	1.224E-03	4.120E-04	1.046E-02	1.579E-04	4.201E-03
.655	1.800	2.083E-03	8.399E-04	5.335E-04	4.838E-01	1.613E-04	3.411E-03
1.043	2.000	1.601E-04	1.130E-04	7.358E-04	3.140E-03	1.217E-03	6.002E-05

PHASE (MOTION-HAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	-128.1	88.8	.2	67.0	82.4	41.3
.202	.250	-118.5	88.7	.2	62.0	82.6	31.5
.232	.300	-112.3	88.4	.2	56.6	83.0	29.4
.257	.350	-108.1	87.7	.2	51.5	81.9	26.7
.278	.400	-105.0	86.5	.1	47.1	80.5	25.2
.296	.450	-102.7	85.0	-.1	43.4	78.2	25.6
.310	.500	-100.9	82.5	-.4	40.8	75.3	26.1
.320	.550	-99.4	78.1	-.8	39.5	72.0	27.7
.326	.600	-98.2	71.0	-1.1	39.3	68.1	29.8
.329	.625	-97.8	66.0	-1.2	39.7	66.0	31.0
.329	.650	-97.5	59.7	-1.2	40.4	63.6	32.3
.328	.675	-97.5	52.0	-1.0	41.5	61.1	33.6
.327	.700	-97.8	42.9	-.6	43.1	58.4	35.0
.325	.725	-98.7	32.7	.3	45.2	55.5	36.5
.322	.750	-100.5	22.1	1.9	48.3	52.3	38.1
.313	.800	-110.9	3.0	10.8	59.4	44.7	41.3
.300	.850	-154.5	-10.7	49.2	86.7	34.2	44.6
.284	.900	-150.6	-19.6	115.0	138.6	15.5	49.6
.263	.950	133.1	-21.5	132.7	169.5	-35.6	156.2
.239	1.000	141.7	-9.9	137.4	-178.6	-103.5	-142.1
.211	1.050	153.7	82.5	141.3	-172.6	-129.3	-133.0
.180	1.100	-175.6	119.1	166.7	-167.9	-143.4	-123.9
.144	1.150	-110.4	127.8	-86.6	-148.8	-156.8	-104.8
.124	1.200	-65.1	140.1	-77.3	.2	-178.5	-48.6
.061	1.250	-36.3	-168.2	-81.7	5.3	124.3	-7.3
.014	1.300	-3.4	-129.6	-105.6	2.1	77.6	-30.8
.091	1.400	82.2	-81.4	80.7	156.5	9.2	74.5
.347	1.600	-108.3	112.4	-120.5	-50.9	130.4	-45.3
.665	1.800	93.8	151.9	67.9	169.1	-170.0	168.8
1.043	2.000	2.3	-132.3	-38.7	-173.7	-30.2	59.3

REC = 9 HEADING = 15. DEG SHIP SPEED = 20. KNOTS
RAO (NOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	2.644E+00	1.281E-01	9.767E-01	4.466E-04	1.794E-03	8.733E-05
.187	.250	2.729E+00	1.464E-01	9.510E-01	1.215E-03	5.381E-03	2.800E-04
.209	.300	3.124E+00	1.652E-01	9.108E-01	2.875E-03	1.213E-02	8.141E-04
.226	.350	3.720E+00	1.828E-01	8.500E-01	6.116E-03	2.250E-02	1.990E-03
.238	.400	4.481E+00	1.996E-01	7.703E-01	1.187E-02	3.674E-02	4.498E-03
.245	.450	5.383E+00	2.128E-01	6.702E-01	2.101E-02	5.363E-02	9.090E-03
.246	.500	6.387E+00	2.202E-01	5.526E-01	3.364E-02	7.061E-02	1.653E-02
.243	.550	7.419E+00	2.207E-01	4.252E-01	4.830E-02	8.445E-02	2.739E-02
.235	.600	8.359E+00	2.154E-01	2.985E-01	6.138E-02	9.162E-02	4.133E-02
.229	.625	8.742E+00	2.120E-01	2.395E-01	6.582E-02	9.189E-02	4.900E-02
.221	.650	9.022E+00	2.093E-01	1.861E-01	6.847E-02	8.995E-02	5.758E-02
.213	.675	9.172E+00	2.094E-01	1.387E-01	6.841E-02	8.557E-02	6.581E-02
.203	.700	9.160E+00	2.153E-01	9.810E-02	6.531E-02	7.897E-02	7.286E-02
.192	.725	8.952E+00	2.302E-01	6.598E-02	5.915E-02	7.056E-02	7.772E-02
.179	.750	8.519E+00	2.583E-01	3.984E-02	5.012E-02	6.092E-02	7.930E-02
.151	.800	6.772E+00	3.952E-01	1.131E-02	2.888E-02	4.048E-02	7.503E-02
.117	.850	4.948E+00	7.760E-01	4.122E-03	9.259E-03	2.269E-02	5.699E-02
.078	.900	2.163E+01	2.773E+00	6.715E-03	7.363E-04	1.026E-02	4.185E-02
.035	.950	1.200E+03	6.379E+01	1.015E-02	4.168E-03	5.327E-03	1.288E-01
.014	1.000	5.145E+04	1.983E+03	5.231E-03	1.158E-02	3.653E-03	9.570E-01
.068	1.050	8.171E+01	3.319E-01	1.343E-03	1.939E-02	3.689E-03	7.737E-03
.127	1.100	2.821E+00	1.150E-01	1.799E-04	1.128E-02	4.756E-03	1.925E-02
.191	1.150	4.374E-01	4.747E-02	7.098E-04	1.171E-03	2.765E-03	7.534E-03
.261	1.200	2.945E-01	8.528E-03	1.601E-03	6.146E-03	5.790E-04	4.979E-03
.335	1.250	1.433E-01	4.872E-03	1.831E-03	3.165E-02	3.917E-04	8.434E-03
.414	1.300	5.154E-02	5.233E-03	1.109E-03	4.993E-02	1.655E-03	8.613E-03
.588	1.400	1.370E-02	1.933E-04	7.305E-04	1.162E-01	5.432E-04	2.874E-03
.996	1.600	1.006E-03	2.666E-04	1.255E-03	2.767E-02	3.189E-04	1.348E-04
1.436	1.800	8.760E-05	1.305E-05	1.033E-04	7.549E-04	3.867E-04	2.876E-05
2.057	2.000	2.527E-05	4.440E-06	1.323E-04	5.564E-06	7.021E-05	1.897E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	-128.0	88.3	.1	62.5	71.3	70.0
.187	.250	-118.3	88.2	.1	57.2	76.2	57.7
.209	.300	-112.0	87.8	-.0	51.7	77.9	48.8
.226	.350	-107.7	87.0	-.1	46.7	78.4	44.7
.238	.400	-104.5	85.6	-.3	42.4	77.4	41.3
.245	.450	-102.0	83.6	-.7	38.9	75.7	39.6
.246	.500	-99.9	80.5	-1.1	35.2	73.4	39.1
.243	.550	-98.1	75.9	-1.5	34.2	70.6	39.5
.235	.600	-96.5	69.1	-1.8	32.9	67.4	40.4
.229	.650	-95.8	64.5	-1.8	32.5	65.7	40.9
.221	.690	-95.2	59.0	-1.7	32.2	63.6	41.5
.213	.735	-94.8	52.3	-1.4	32.0	61.5	42.1
.203	.780	-94.7	44.6	-.6	32.0	59.3	42.9
.192	.825	-94.9	36.1	1.0	32.2	57.2	43.6
.179	.870	-95.6	27.3	4.1	32.6	55.1	44.2
.151	.900	-101.9	8.9	19.6	34.7	49.8	45.4
.117	.850	-128.1	-7.4	68.4	40.5	44.3	44.3
.078	.900	172.6	-22.7	106.1	89.9	34.7	41.2
.035	.950	153.1	-37.1	108.2	-174.0	21.6	36.3
.014	1.000	152.5	-44.4	104.4	-171.7	-32.1	39.3
.068	1.050	156.2	-25.1	127.4	-171.0	-105.2	-95.9
.127	1.100	-176.5	113.2	-156.8	-167.5	-131.9	-121.5
.191	1.150	-109.9	131.9	-92.7	-133.0	-152.4	-94.4
.261	1.200	-68.2	164.2	-77.5	-16.5	173.2	-35.8
.335	1.250	-41.3	-126.0	-67.7	.1	57.6	4.9
.414	1.300	-7.7	-89.2	-50.7	19.8	21.0	34.4
.588	1.400	78.5	-30.5	72.8	133.3	-22.2	130.5
.995	1.600	-105.8	128.3	-108.6	130.1	139.5	-29.6
1.486	1.800	98.8	22.0	136.8	-14.2	-104.3	-162.4
2.057	2.000	-14.5	-95.7	138.7	91.9	5.3	113.5

REC = 10

HEADING = 15. DEG
RAOSHIP SPEED = 25. KNOTS
(MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	3.400E+00	1.701E-01	9.826E-01	4.889E-04	1.581E-03	9.597E-05
.171	.250	3.833E+00	2.135E-01	9.522E-01	1.349E-03	4.322E-03	2.657E-04
.186	.300	4.879E+00	2.713E-01	9.117E-01	3.232E-03	9.978E-03	6.207E-04
.195	.350	6.593E+00	3.480E-01	8.510E-01	6.934E-03	1.874E-02	1.452E-03
.197	.400	9.263E+00	4.550E-01	7.685E-01	1.345E-02	3.045E-02	3.185E-03
.193	.450	1.351E+01	6.148E-01	6.649E-01	2.370E-02	4.403E-02	6.451E-03
.183	.500	2.055E+01	8.791E-01	5.434E-01	3.764E-02	5.732E-02	1.197E-02
.165	.550	3.326E+01	1.385E+00	4.132E-01	5.379E-02	6.784E-02	2.070E-02
.144	.600	5.959E+01	2.566E+00	2.878E-01	6.958E-02	7.335E-02	3.549E-02
.137	.625	8.510E+01	3.859E+00	2.277E-01	7.465E-02	7.338E-02	4.611E-02
.114	.650	1.307E+02	6.398E+00	1.711E-01	7.602E-02	7.207E-02	6.132E-02
.097	.675	2.189E+02	1.209E+01	1.268E-01	7.759E-02	6.766E-02	9.459E-02
.079	.700	4.342E+02	2.797E+01	8.744E-02	7.427E-02	6.188E-02	1.645E-01
.059	.725	1.178E+03	8.906E+01	5.322E-02	6.303E-02	6.090E-02	3.385E-01
.037	.750	5.571E+03	5.608E+02	3.132E-02	5.639E-02	3.950E-02	1.075E+00
.014	.800	1.204E+05	1.431E+04	1.542E-02	2.892E-02	5.616E-02	4.888E+00
.066	.850	6.108E+01	6.268E+00	8.855E-03	1.134E-02	2.819E-02	4.262E-02
.127	.900	3.440E+00	5.041E-01	6.904E-03	1.493E-03	9.431E-03	1.076E-02
.194	.950	1.703E+00	7.491E-02	5.959E-03	1.335E-02	1.543E-03	5.946E-05
.264	1.000	6.015E-01	5.019E-03	4.403E-03	3.646E-02	1.512E-03	3.819E-03
.348	1.050	1.395E-01	3.584E-03	2.922E-03	6.111E-02	3.989E-03	8.643E-03
.434	1.100	2.294E-02	4.429E-03	1.496E-03	5.411E-02	4.719E-03	6.434E-03
.527	1.150	1.203E-02	1.932E-03	1.112E-03	4.415E-02	2.563E-03	3.560E-03
.625	1.200	1.218E-02	1.691E-04	1.806E-03	3.263E-01	4.930E-04	3.800E-03
.731	1.250	7.340E-03	3.572E-03	2.978E-03	1.655E+00	1.016E-03	2.399E-03
.843	1.300	3.134E-03	3.373E-04	4.239E-03	1.459E-01	3.354E-03	1.239E-04
1.085	1.400	1.211E-03	2.229E-04	4.629E-03	1.437E-02	8.000E-04	1.488E-04
1.645	1.600	1.171E-04	1.009E-05	1.350E-03	6.587E-04	5.787E-05	2.510E-05
2.307	1.800	1.792E-05	5.824E-07	6.511E-05	5.761E-05	3.553E-05	1.947E-06
3.071	2.000	2.479E-06	2.305E-07	1.440E-06	1.845E-06	4.410E-05	2.845E-07

PHASE (MOTION-WAVEHT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	-127.9	87.8	-.1	59.2	53.0	105.1
.171	.250	-118.1	87.8	-.2	54.1	66.2	102.3
.186	.300	-111.7	87.3	-.4	48.6	69.9	87.9
.195	.350	-107.3	86.6	-.6	43.7	71.4	79.8
.197	.400	-104.0	85.4	-1.0	39.7	71.5	75.8
.193	.450	-101.2	83.7	-1.5	36.4	70.6	75.0
.183	.500	-98.8	81.7	-2.0	34.0	69.2	77.5
.165	.550	-95.6	79.3	-2.6	32.1	67.3	83.3
.144	.600	-94.6	76.8	-3.1	30.7	64.3	92.4
.130	.625	-93.6	75.9	-2.9	30.3	63.5	100.3
.114	.650	-92.6	75.6	-2.0	29.9	63.9	111.3
.097	.675	-92.0	75.1	-1.8	29.6	60.9	120.9
.079	.700	-91.5	75.2	-.5	29.4	59.3	132.9
.059	.725	-91.1	76.2	5.8	28.7	63.5	146.7
.037	.750	-91.8	75.9	4.3	29.3	54.8	154.9
.014	.800	-97.0	72.0	58.8	25.9	69.0	158.8
.065	.850	-122.0	28.5	76.4	32.3	53.2	91.4
.127	.900	164.7	-25.3	101.1	106.8	37.8	40.0
.194	.950	141.3	-30.0	120.5	171.3	-2.5	-38.1
.263	1.000	141.3	-.7	136.4	-177.4	-93.2	-136.4
.343	1.050	154.0	102.2	154.3	-163.0	-129.2	-125.4
.434	1.100	-168.4	133.0	-174.5	-139.0	-145.9	-105.2
.527	1.150	-103.6	159.3	-119.0	-80.8	-162.6	-70.6
.626	1.200	-67.7	-103.3	-72.9	-6.9	154.1	-18.0
.711	1.250	-40.4	118.2	-36.8	122.3	55.1	103.3
.843	1.300	-4.8	-140.0	1.5	-164.5	32.8	90.8
1.085	1.400	83.1	-45.5	90.0	-42.0	12.1	146.7
1.645	1.600	-101.9	144.1	-6.1	153.1	-175.1	-10.4
2.307	1.800	103.5	12.3	-177.4	-49.5	-56.4	-172.7
3.071	2.000	4.0	-178.8	-97.9	175.4	80.7	79.0

REC = 11

HEADING = 30. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SNAY	HEAVE	ROLL	PITCH	YAW
.191	.200	1.167E+00	2.699E-01	9.917E-01	1.453E-03	3.133E-03	9.247E-04
.235	.250	9.523E-01	2.657E-01	9.768E-01	3.931E-03	7.938E-03	2.200E-03
.280	.300	8.613E-01	2.610E-01	9.517E-01	9.392E-03	1.659E-02	4.644E-03
.322	.350	8.023E-01	2.860E-01	9.214E-01	2.207E-02	3.078E-02	1.134E-02
.364	.400	7.432E-01	2.848E-01	8.755E-01	4.986E-02	5.117E-02	2.059E-02
.404	.450	6.726E-01	2.598E-01	8.076E-01	1.055E-01	7.733E-02	3.148E-02
.443	.500	5.865E-01	2.218E-01	7.159E-01	2.143E-01	1.073E-01	4.338E-02
.481	.550	4.857E-01	1.786E-01	6.029E-01	4.055E-01	1.374E-01	5.509E-02
.518	.600	3.754E-01	1.361E-01	4.753E-01	7.217E-01	1.619E-01	6.492E-02
.555	.625	3.195E-01	1.166E-01	4.093E-01	9.411E-01	1.702E-01	6.850E-02
.594	.650	2.649E-01	9.892E-02	3.442E-01	1.209E+00	1.748E-01	7.087E-02
.631	.675	2.130E-01	8.322E-02	2.816E-01	1.532E+00	1.753E-01	7.180E-02
.669	.700	1.652E-01	6.965E-02	2.233E-01	1.915E+00	1.713E-01	7.112E-02
.707	.725	1.227E-01	5.809E-02	1.705E-01	2.367E+00	1.628E-01	6.867E-02
.745	.750	9.650E-02	4.824E-02	1.247E-01	2.901E+00	1.501E-01	6.435E-02
.783	.800	3.491E-02	2.976E-02	5.747E-02	4.057E+00	1.163E-01	4.696E-02
.821	.850	1.005E-02	7.751E-03	1.964E-02	5.165E+00	7.640E-02	1.899E-02
.859	.900	4.587E-03	5.312E-03	5.071E-03	5.930E+00	3.849E-02	3.046E-03
.897	.950	7.721E-03	2.371E-02	5.332E-03	5.022E+00	1.243E-02	5.622E-03
.935	1.000	1.032E-02	2.350E-02	1.047E-02	4.009E+00	3.333E-03	3.786E-03
.973	1.050	8.608E-03	1.469E-02	1.298E-02	2.584E+00	8.222E-03	1.554E-03
.1.011	1.100	4.358E-03	6.764E-03	1.056E-02	1.234E+00	1.703E-02	1.155E-03
.1.049	1.150	1.331E-03	2.926E-03	5.795E-03	3.946E-01	1.924E-02	1.259E-03
.1.087	1.200	1.227E-03	2.394E-03	2.708E-03	1.441E-01	1.217E-02	1.145E-03
.1.125	1.250	2.502E-03	2.786E-03	2.804E-03	2.331E-01	3.307E-03	8.306E-04
.1.163	1.300	2.881E-03	2.709E-03	4.268E-03	3.147E-01	1.748E-03	6.283E-04
.1.201	1.400	1.384E-03	2.243E-03	3.640E-03	1.159E-01	9.704E-03	6.804E-04
.1.239	1.500	7.115E-04	1.263E-03	2.589E-03	5.486E-02	5.984E-03	4.716E-04
.1.277	1.600	3.202E-04	7.657E-04	1.551E-03	1.726E-02	3.791E-03	2.890E-04
.1.315	2.000	2.327E-04	4.355E-04	8.456E-04	1.419E-02	1.626E-03	2.307E-04

PHASE (MOTION-WAVEVENT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
1.01	.200	-131.0	89.8	.1	78.6	91.5	9.3
.235	.250	-121.2	89.8	.2	73.9	89.5	10.8
.280	.300	-114.8	89.7	.2	68.8	87.8	11.5
.322	.350	-110.5	90.9	.1	62.7	85.7	8.3
.384	.400	-107.6	91.1	-.0	57.6	83.6	9.8
.404	.450	-105.4	90.6	-.0	54.1	81.5	13.1
.443	.500	-103.7	89.4	.1	52.3	79.2	16.9
.481	.550	-102.5	87.5	.4	52.2	76.6	21.0
.518	.600	-101.7	84.6	.9	54.0	73.5	25.7
.535	.625	-101.5	82.8	1.3	55.7	71.8	28.3
.554	.650	-101.4	80.6	1.8	58.0	69.9	31.1
.571	.675	-101.6	78.2	2.4	61.1	68.0	34.3
.589	.700	-102.0	75.7	3.2	65.2	65.8	38.1
.606	.725	-102.8	73.3	4.3	70.5	63.4	42.5
.622	.750	-104.3	71.6	5.7	77.5	60.8	48.0
.654	.800	-110.9	74.1	10.8	101.2	54.8	65.5
.686	.850	-130.5	98.8	23.0	148.2	47.2	102.3
.716	.900	179.0	-92.4	59.9	-136.2	36.5	-147.9
.745	.950	144.3	-46.3	121.2	-71.6	15.4	-58.4
.773	1.000	135.6	-24.9	147.8	-35.2	-44.0	-38.2
.799	1.050	137.4	-7.8	161.3	-12.5	-107.3	-45.7
.825	1.100	143.4	14.8	174.1	7.0	-129.4	-68.8
.849	1.150	-177.1	53.6	-166.1	34.8	-143.1	-77.6
.873	1.200	-109.2	103.1	-126.9	94.2	-157.1	-68.1
.895	1.250	-74.3	140.8	-74.3	147.9	175.4	-43.7
.916	1.300	-52.3	173.1	-39.5	173.9	81.3	-6.0
.934	1.400	15.7	-113.9	15.6	-128.3	24.0	76.5
1.018	1.500	172.8	53.0	-175.7	36.5	-165.5	-119.8
1.063	1.600	8.9	-117.6	8.6	-131.8	-3.4	76.5
1.091	2.000	-138.6	90.3	-170.0	100.0	139.9	-64.9

REC = 12

HEADING = 30. DEG

SHIP SPEED = 10. KNOTS

RAO (MOTION/HAVEIT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	1.404E+00	3.028E-01	9.855E-01	1.451E-03	2.404E-03	7.287E-04
.222	.250	1.206E+00	3.089E-01	9.681E-01	3.865E-03	6.497E-03	1.980E-03
.259	.300	1.151E+00	3.128E-01	9.401E-01	9.060E-03	1.401E-02	4.660E-03
.294	.350	1.133E+00	3.151E-01	8.975E-01	1.968E-02	2.591E-02	1.007E-02
.327	.400	1.113E+00	3.314E-01	8.467E-01	4.203E-02	4.353E-02	2.251E-02
.358	.450	1.071E+00	3.178E-01	7.746E-01	8.458E-02	6.572E-02	3.861E-02
.386	.500	9.943E-01	2.834E-01	6.811E-01	1.576E-01	9.049E-02	5.769E-02
.412	.550	8.791E-01	2.761E-01	5.693E-01	2.682E-01	1.144E-01	7.804E-02
.436	.600	7.277E-01	1.832E-01	4.463E-01	4.123E-01	1.328E-01	9.652E-02
.447	.625	6.416E-01	1.569E-01	3.837E-01	4.899E-01	1.394E-01	1.037E-01
.458	.650	5.515E-01	1.319E-01	3.234E-01	5.642E-01	1.410E-01	1.088E-01
.468	.675	4.602E-01	1.088E-01	2.637E-01	6.281E-01	1.402E-01	1.112E-01
.477	.700	3.707E-01	8.821E-02	2.092E-01	6.749E-01	1.359E-01	1.105E-01
.486	.725	2.863E-01	7.055E-02	1.600E-01	6.945E-01	1.281E-01	1.064E-01
.494	.750	2.100E-01	5.599E-02	1.172E-01	6.849E-01	1.171E-01	9.895E-02
.509	.800	9.179E-02	3.572E-02	5.279E-02	5.773E-01	8.801E-02	7.527E-02
.521	.850	2.767E-02	2.471E-02	1.649E-02	4.174E-01	5.536E-02	4.581E-02
.532	.900	1.246E-02	1.842E-02	2.935E-03	3.559E-01	2.699E-02	2.052E-02
.543	.950	2.534E-02	1.294E-02	2.835E-03	5.214E-01	8.894E-03	8.245E-03
.545	1.000	4.002E-02	6.997E-03	6.536E-03	8.583E-01	2.555E-03	1.084E-02
.549	1.050	3.929E-02	2.074E-03	7.808E-03	1.089E+00	4.384E-03	2.080E-02
.553	1.100	2.419E-02	3.065E-04	5.399E-03	9.473E-01	8.003E-03	2.664E-02
.549	1.150	9.355E-03	1.670E-03	1.869E-03	5.018E-01	8.425E-03	2.298E-02
.545	1.200	7.473E-03	3.371E-03	3.071E-04	1.573E-01	5.151E-03	1.564E-02
.543	1.250	1.632E-02	2.726E-03	1.476E-03	1.949E-01	1.564E-03	1.424E-02
.532	1.300	2.319E-02	9.601E-04	2.288E-03	4.193E-01	7.493E-04	1.948E-02
.509	1.400	1.765E-02	5.692E-03	5.182E-04	2.285E-01	2.766E-03	1.659E-02
.436	1.600	2.096E-02	8.796E-03	3.277E-04	1.048E-01	1.074E-03	1.711E-02
.327	1.800	2.951E-02	2.527E-02	4.814E-05	2.193E-02	3.696E-04	1.239E-02
.181	2.000	1.739E-01	1.397E-01	6.627E-06	7.599E-04	1.068E-04	9.992E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	-131.0	89.3	.2	74.1	87.5	20.2
.222	.250	-121.1	89.3	.2	69.6	86.6	18.7
.259	.300	-114.6	89.2	.3	64.7	85.6	17.5
.294	.350	-110.3	89.1	.3	59.4	84.3	16.6
.327	.400	-107.3	89.5	.1	54.1	82.1	15.0
.359	.450	-105.0	88.9	-.1	50.3	79.9	16.4
.386	.500	-103.3	87.5	-.3	47.8	77.5	18.8
.412	.550	-102.0	85.1	-.4	46.9	74.6	21.8
.436	.600	-101.0	81.4	-.5	47.2	71.2	25.0
.447	.625	-100.7	79.0	-.5	48.0	69.3	26.8
.458	.650	-100.6	76.0	-.5	49.1	67.2	28.7
.463	.675	-100.6	72.4	-.4	50.7	65.0	30.7
.477	.700	-100.9	68.0	-.2	52.8	62.5	32.9
.486	.725	-101.5	62.7	.1	55.5	59.8	35.3
.494	.750	-102.7	56.4	.7	59.1	56.9	37.9
.509	.800	-108.5	40.6	3.2	70.2	50.1	44.6
.521	.850	-126.9	22.2	11.0	90.5	41.5	54.6
.532	.900	-180.0	5.1	42.9	124.3	29.4	73.0
.540	.950	143.0	-7.8	116.8	150.5	7.8	115.4
.545	1.000	134.7	-14.9	139.5	-179.7	-47.3	171.2
.549	1.050	136.8	-11.6	146.2	-165.6	-110.4	-159.5
.550	1.100	147.6	54.1	150.7	-153.6	-137.3	-140.5
.549	1.150	177.9	114.2	160.9	-137.2	-154.9	-119.9
.545	1.200	-118.7	124.4	-140.2	-97.1	-173.0	-88.8
.542	1.250	-78.4	135.0	-74.1	-27.7	155.6	-45.3
.532	1.300	-54.0	172.8	-62.8	1.7	73.4	-8.8
.509	1.400	11.0	-90.3	-43.3	39.4	2.4	48.5
.436	1.600	169.2	75.1	98.9	-166.9	164.0	-154.5
.327	1.900	2.0	-103.1	-113.5	-12.9	-39.6	13.6
.181	2.000	-140.7	64.7	-137.0	42.0	130.6	140.3

REC = 13

HEADING = 30. DEG
RAOSHIP SPEED = 15. KNOTS
(MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	1.706E+00	3.539E-01	9.800E-01	1.512E-03	1.761E-03	4.055E-04
.207	.250	1.553F+00	3.792E-01	9.616E-01	4.017E-03	5.210E-03	1.440E-03
.239	.300	1.575E+00	3.934E-01	9.290E-01	9.344E-03	1.156E-02	3.671E-03
.266	.350	1.657E+00	4.034E-01	8.824E-01	1.984E-02	2.173E-02	8.389E-03
.291	.400	1.750E+00	4.039E-01	8.170E-01	3.922E-02	3.587E-02	1.720E-02
.312	.450	1.820E+00	4.077E-01	7.407E-01	7.483E-02	5.453E-02	3.692E-02
.329	.500	1.841E+00	3.831E-01	6.443E-01	1.314E-01	7.497E-02	6.392E-02
.344	.550	1.785E+00	3.360E-01	5.319E-01	2.088E-01	9.410E-02	9.710E-02
.354	.600	1.636E+00	2.745E-01	4.110E-01	2.961E-01	1.081E-01	1.330E-01
.359	.625	1.824E+00	2.417E-01	3.504E-01	3.364E-01	1.120E-01	1.501E-01
.362	.650	1.388E+00	2.096E-01	2.916E-01	3.692E-01	1.133E-01	1.653E-01
.364	.675	1.231E+00	1.798E-01	2.360E-01	3.905E-01	1.118E-01	1.773E-01
.365	.700	1.059E+00	1.537E-01	1.849E-01	3.366E-01	1.075E-01	1.851E-01
.367	.725	8.764E-01	1.327E-01	1.393E-01	3.853E-01	1.005E-01	1.874E-01
.366	.750	6.926E-01	1.176E-01	1.002E-01	3.563E-01	9.134E-02	1.836E-01
.363	.800	3.588E-01	1.057E-01	4.285E-02	2.561E-01	6.718E-02	1.562E-01
.357	.850	1.252E-01	1.117E-01	1.219E-02	1.405E-01	4.149E-02	1.074E-01
.348	.900	4.904E-02	1.185E-01	1.967E-03	6.945E-02	1.996E-02	5.245E-02
.334	.950	1.247E-01	1.066F-01	2.651E-03	7.332E-02	6.554E-03	1.278E-02
.318	1.000	2.786E-01	6.930E-02	5.366E-03	1.260E-01	1.674E-03	3.941E-03
.293	1.050	3.913E-01	2.433E-02	5.341E-03	1.584E-01	2.310E-03	2.170E-02
.275	1.100	3.698E-01	6.262E-03	2.887E-03	1.365E-01	4.215E-03	4.834E-02
.243	1.150	2.242E-01	4.370E-02	5.841E-04	7.067E-02	4.598E-03	6.223E-02
.218	1.200	1.939E-01	1.177E-01	2.090E-04	1.116E-02	3.121E-03	4.525E-02
.184	1.250	7.457E-01	1.379E-01	1.184E-03	5.527E-03	1.230E-03	2.702E-02
.147	1.300	2.707E+00	9.381E-02	1.662E-03	3.810E-02	2.930E-04	7.141E-02
.063	1.400	4.901E+01	1.841E+01	3.851E-05	2.437E-02	1.527E-03	4.244E-01
.146	1.600	1.385E+00	7.473E-01	1.343E-04	2.511E-02	3.273E-04	1.128E-01
.410	1.800	1.287F-02	1.404E-02	7.813E-05	4.346E-02	4.030E-04	8.708E-03
.728	2.000	1.071E-03	1.530E-03	3.264E-05	3.573E-01	4.393E-04	1.222E-03

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-130.9	88.9	.2	69.0	81.4	40.8
.207	.250	-121.0	88.8	.2	54.5	81.8	30.5
.233	.300	-114.4	88.6	.2	59.6	82.4	28.0
.266	.350	-110.0	88.0	.1	54.7	81.7	25.7
.291	.400	-106.9	87.3	.0	50.2	80.6	24.7
.312	.450	-104.5	86.5	-.2	46.1	78.2	23.3
.323	.500	-102.7	84.6	-.6	43.3	75.7	24.0
.344	.550	-101.2	81.4	-1.1	41.8	72.7	25.7
.354	.600	-100.1	76.4	-1.6	41.3	69.2	27.8
.359	.625	-99.6	72.9	-1.8	41.5	67.2	29.0
.362	.650	-99.3	68.6	-2.1	41.9	65.1	30.4
.364	.675	-99.2	63.3	-2.3	42.7	62.8	31.7
.366	.700	-99.2	56.8	-2.4	43.8	60.4	33.2
.367	.725	-99.5	49.0	-2.4	45.4	57.7	34.9
.366	.750	-100.3	40.1	-2.2	47.5	54.9	36.6
.363	.800	-104.5	20.4	-.2	54.4	48.3	40.6
.357	.850	-119.0	3.0	7.6	58.8	40.2	45.9
.348	.900	-170.3	-8.9	45.6	100.6	29.1	54.0
.334	.950	144.8	-15.3	116.4	145.4	9.9	73.5
.313	1.000	135.1	-16.6	137.9	171.0	-38.9	166.7
.298	1.050	136.9	-8.6	137.9	-177.9	-103.5	-149.3
.275	1.100	146.5	61.5	140.5	-172.5	-130.5	-137.8
.243	1.150	171.5	116.0	152.3	-167.5	-146.1	-127.0
.213	1.200	-128.8	127.7	-101.5	-156.5	-159.1	-108.9
.184	1.250	-78.8	140.4	-76.7	-12.9	-176.9	-62.2
.147	1.300	-51.3	-167.9	-76.4	1.6	134.5	-8.9
.063	1.400	12.8	-100.0	-91.7	2.9	45.2	2.2
.145	1.600	171.0	77.5	73.6	170.5	-160.2	179.1
.410	1.800	2.5	-98.8	-107.8	.5	-44.0	25.8
.728	2.000	-143.2	38.5	134.9	8.8	100.9	-26.6

REC = 14

HEADING = 30. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 20. KNOTS

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	2.097E+00	4.388E-01	9.793E-01	1.623E-03	1.315E-03	2.640E-04
.193	.250	2.036E+00	4.924E-01	9.581E-01	4.357E-03	4.125E-03	8.636E-04
.218	.300	2.220E+00	5.420E-01	9.230E-01	1.020E-02	9.435E-03	2.395E-03
.239	.350	2.532E+00	5.888E-01	8.722E-01	2.157E-02	1.795E-02	5.948E-03
.254	.400	2.927E+00	6.294E-01	8.047E-01	4.200E-02	2.998E-02	1.331E-02
.266	.450	3.376E+00	6.548E-01	7.173E-01	7.515E-02	4.468E-02	2.626E-02
.273	.500	3.843E+00	6.609E-01	6.127E-01	1.231E-01	6.055E-02	4.713E-02
.275	.550	4.275E+00	6.436E-01	4.961E-01	1.936E-01	7.519E-02	7.804E-02
.273	.600	4.602E+00	6.023E-01	3.752E-01	2.471E-01	8.569E-02	1.197E-01
.273	.625	4.698E+00	5.743E-01	3.162E-01	2.748E-01	8.850E-02	1.441E-01
.266	.650	4.732E+00	5.439E-01	2.597E-01	2.964E-01	8.932E-02	1.698E-01
.261	.675	4.692E+00	5.138E-01	2.070E-01	3.092E-01	8.799E-02	1.958E-01
.254	.700	4.566E+00	4.878E-01	1.593E-01	3.109E-01	8.449E-02	2.204E-01
.247	.725	4.344E+00	4.708E-01	1.175E-01	3.002E-01	7.895E-02	2.418E-01
.238	.750	4.019E+00	4.680E-01	8.224E-02	2.767E-01	7.164E-02	2.575E-01
.218	.800	3.054E+00	5.350E-01	3.292E-02	2.010E-01	5.373E-02	2.697E-01
.193	.850	1.805E+00	7.592E-01	8.791E-03	1.075E-01	3.466E-02	2.425E-01
.163	.900	8.842E-01	1.231E+00	2.659E-03	3.238E-02	1.846E-02	1.749E-01
.129	.950	2.979E+00	2.302E+00	4.842E-03	5.662E-03	7.662E-03	9.732E-02
.091	1.000	2.646E+01	6.231E+00	7.130E-03	2.724E-02	2.476E-03	5.893E-02
.047	1.050	4.281E+02	6.077E+01	5.656E-03	6.121E-02	1.598E-03	1.806E-01
.014	1.100	3.792E+04	4.567E+03	1.282E-03	6.779E-02	4.705E-03	2.059E+00
.053	1.150	9.866E+01	1.685E+00	3.260E-05	5.357E-02	5.195E-03	3.617E-02
.110	1.200	2.407E+00	1.241E+00	6.067E-04	1.069E-02	3.795E-03	5.080E-02
.171	1.250	9.753E-01	1.850E-01	1.505E-03	5.884E-03	1.284E-03	1.556E-02
.237	1.300	4.553E-01	2.565E-02	1.717E-03	5.292E-02	1.415E-04	2.336E-02
.382	1.400	5.186E-02	3.066E-02	3.217E-04	1.034E-01	1.398E-03	2.196E-02
.728	1.600	2.917E-03	2.127E-03	1.030E-03	1.995E+00	1.492E-03	5.586E-03
1.146	1.800	2.450E-04	4.479E-04	3.265E-03	8.580E-03	2.084E-03	2.178E-04
1.637	2.000	4.363E-05	4.021E-05	7.088E-04	9.860E-04	2.737E-04	6.433E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	-130.9	88.4	.1	54.6	68.4	67.7
.193	.250	-120.8	88.3	.1	59.7	74.1	53.2
.218	.300	-114.2	88.0	-.0	54.6	76.9	46.4
.233	.350	-109.7	87.4	-.1	49.7	77.6	41.3
.254	.400	-106.4	86.3	-.4	45.3	76.9	37.8
.266	.450	-103.9	84.7	-.7	41.7	75.6	35.3
.273	.500	-101.9	82.3	-1.1	38.8	73.6	35.8
.275	.550	-100.2	78.7	-1.7	36.6	71.0	35.8
.273	.600	-98.7	73.4	-2.3	35.0	67.9	36.3
.270	.625	-98.0	69.8	-2.6	34.5	66.1	36.7
.266	.650	-97.4	65.4	-2.9	34.1	64.2	37.1
.261	.675	-97.0	60.1	-3.1	33.8	62.2	37.6
.254	.700	-96.6	53.7	-3.1	33.7	60.1	38.1
.247	.725	-96.4	46.1	-2.9	33.7	57.9	38.7
.238	.750	-95.5	37.5	-2.3	31.9	55.6	39.2
.213	.800	-98.5	17.9	-2.3	35.3	50.5	40.0
.193	.850	-106.9	-1.1	1.4	39.0	44.6	40.3
.163	.900	-141.6	-17.0	67.1	50.3	37.7	38.3
.123	.950	160.0	-30.3	110.2	116.5	27.1	30.9
.091	1.000	144.6	-42.3	118.8	178.9	5.3	10.3
.047	1.050	145.9	-50.3	114.0	-171.3	-36.7	8.8
.014	1.100	153.9	-48.1	96.5	-174.0	-73.6	34.3
.053	1.150	170.1	53.5	-177.3	-174.1	-116.2	-129.2
.110	1.200	-131.7	114.8	-91.4	-168.1	-140.0	-123.5
.171	1.250	-78.6	137.9	-81.7	-15.0	-163.3	-61.1
.237	1.300	-53.3	-158.7	-76.3	-2.6	123.2	-8.1
.382	1.400	10.1	-79.3	-43.5	30.0	9.2	50.2
.723	1.500	170.8	-32.8	139.6	-48.6	173.1	-73.9
.1.146	1.800	9.3	-107.8	27.2	-127.6	2.4	86.2
1.637	2.000	-138.8	122.1	-53.3	136.2	-170.7	-30.5

REC = 15

HEADING = 30. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/AVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	2.609E+00	5.604E-01	9.852E-01	1.759E-03	1.225E-03	2.688E-04
.179	.250	2.725E+00	5.769E-01	9.601E-01	4.793E-03	3.389E-03	7.085E-04
.198	.300	3.239E+00	8.200E-01	9.258E-01	1.134E-02	7.921E-03	1.729E-03
.211	.350	4.083E+00	9.906E-01	8.729E-01	2.413E-02	1.502E-02	4.076E-03
.218	.400	5.314E+00	1.201E+00	8.012E-01	4.681E-02	2.482E-02	8.924E-03
.220	.450	7.066E+00	1.470E+00	7.111E-01	8.318E-02	3.682E-02	1.814E-02
.216	.500	9.574E+00	1.829E+00	6.059E-01	1.355E-01	4.973E-02	3.422E-02
.206	.550	1.326E+01	2.345E+00	4.379E-01	2.013E-01	6.139E-02	5.966E-02
.191	.600	1.894E+01	3.183E+00	3.639E-01	2.705E-01	6.916E-02	9.485E-02
.181	.625	2.306E+01	3.841E+00	3.029E-01	3.003E-01	7.085E-02	1.146E-01
.170	.650	2.856E+01	4.788E+00	2.482E-01	3.239E-01	7.102E-02	1.354E-01
.157	.675	3.610E+01	6.211E+00	1.942E-01	3.435E-01	7.006E-02	1.631E-01
.143	.700	4.718E+01	8.539E+00	1.473E-01	3.510E-01	6.733E-02	1.913E-01
.127	.725	6.483E+01	1.268E+01	1.058E-01	3.421E-01	6.320E-02	2.191E-01
.111	.750	9.561E+01	2.089E+01	7.115E-02	3.176E-01	5.823E-02	2.565E-01
.072	.800	3.079E+02	9.599E+01	2.655E-02	2.427E-01	4.536E-02	5.482E-01
.029	.850	5.716E+03	3.157E+03	6.469E-03	1.377E-01	2.467E-02	4.032E+00
.021	.900	6.562E+03	4.212E+03	1.129E-02	4.583E-02	2.473E-02	2.954E+00
.076	.950	2.192E+01	1.154E+01	9.042E-03	2.597E-03	1.159E-02	8.967E-02
.137	1.000	5.706E+00	1.228E+00	6.729E-03	3.691E-02	2.183E-03	7.798E-03
.203	1.050	1.625E+00	6.869E-02	4.485E-03	1.164E-01	1.003E-03	1.314E-02
.275	1.100	3.629E-01	9.037E-03	2.272E-03	1.639E-01	2.759E-03	2.933E-02
.353	1.150	5.482E-02	2.913E-02	9.833E-04	1.590E-01	3.830E-03	3.208E-02
.437	1.200	1.665E-02	1.820E-02	6.131E-04	8.828E-02	2.663E-03	1.849E-02
.526	1.250	1.777E-02	4.463E-03	1.357E-03	2.206E-01	7.306E-04	1.276E-02
.621	1.300	1.297E-02	1.200E-03	2.160E-03	1.614E+00	3.966E-04	1.677E-02
.828	1.400	2.611E-03	2.579E-03	2.959E-03	3.979E-01	3.022E-03	7.931E-04
1.310	1.600	2.540E-04	3.151E-04	6.682E-03	5.930E-03	2.883E-03	1.948E-04
1.883	1.800	2.355E-05	3.260E-05	1.726E-04	2.785E-05	6.311E-04	1.437E-05
2.546	2.000	7.234E-06	3.383E-06	6.541E-05	3.842E-05	3.792E-05	4.824E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	-130.8	87.9	-1	61.2	47.7	100.2
.179	.250	-120.7	87.9	-2	56.4	62.3	93.4
.198	.300	-114.0	87.6	-4	51.2	67.4	78.9
.211	.350	-109.4	86.9	-6	46.4	70.1	71.1
.213	.400	-105.9	85.9	-1.0	42.2	70.8	66.3
.220	.450	-103.2	84.4	-1.5	38.7	70.2	63.5
.216	.500	-101.0	82.4	-2.1	35.8	68.7	62.6
.206	.550	-98.9	79.7	-2.9	33.6	66.4	63.5
.191	.600	-97.0	76.5	-3.6	31.8	64.0	65.7
.181	.625	-96.1	74.7	-3.9	31.2	63.0	69.5
.173	.650	-95.2	73.0	-4.0	30.6	61.9	73.1
.157	.675	-94.4	71.2	-4.2	30.0	60.0	76.9
.143	.700	-93.7	69.6	-4.0	29.5	58.5	82.3
.127	.725	-93.0	68.6	-3.0	29.1	57.8	90.2
.111	.750	-92.6	68.1	-1.0	28.6	57.7	100.5
.072	.800	-93.3	67.7	7.4	28.0	54.8	126.0
.029	.850	-98.5	67.4	34.6	27.6	49.9	149.4
.021	.900	-119.7	50.3	86.6	26.4	53.7	136.3
.076	.950	169.9	-19.1	101.1	81.7	41.0	49.4
.137	1.000	141.0	-39.3	115.9	175.4	9.6	.7
.203	1.050	138.4	-27.1	128.4	-175.7	-78.5	-123.5
.275	1.100	146.6	86.7	143.2	-170.5	-121.8	-130.1
.353	1.150	174.4	125.9	169.7	-151.4	-144.1	-112.3
.437	1.200	-121.2	146.3	-130.8	-107.0	-160.6	-82.8
.525	1.250	-78.5	176.6	-82.4	-30.4	170.8	-39.6
.621	1.300	-54.0	-56.8	-55.9	18.1	75.1	6.7
.828	1.400	14.6	-123.2	7.2	-156.7	18.7	111.4
1.310	1.500	173.7	72.0	-89.1	49.8	-130.3	-100.8
1.483	1.600	19.1	-95.5	-172.2	-132.9	78.7	117.4
2.545	2.000	-137.6	62.7	25.5	123.4	-135.5	-24.2

REC = 16 HEADING = 45. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	9.088E-01	5.317E-01	9.949E-01	2.914E-03	2.001E-03	1.249E-03
.238	.250	6.938E-01	5.245E-01	9.844E-01	7.755E-03	5.158E-03	2.917E-03
.283	.300	6.048E-01	5.153E-01	9.568E-01	1.822E-02	1.094E-02	6.063E-03
.327	.350	5.590E-01	5.811E-01	9.505E-01	4.166E-02	2.078E-02	1.556E-02
.370	.400	5.141E-01	5.863E-01	9.227E-01	9.174E-02	3.534E-02	2.795E-02
.412	.450	4.720E-01	5.486E-01	8.780E-01	1.947E-01	5.493E-02	4.280E-02
.454	.500	4.242E-01	4.879E-01	8.131E-01	3.990E-01	7.904E-02	6.002E-02
.494	.550	3.693E-01	4.173E-01	7.271E-01	7.924E-01	1.060E-01	7.901E-02
.533	.600	3.079E-01	3.463E-01	6.220E-01	1.534E+00	1.330E-01	9.859E-02
.552	.625	2.756E-01	3.131E-01	5.640E-01	2.119E+00	1.452E-01	1.081E-01
.572	.650	2.428E-01	2.826E-01	5.036E-01	2.919E+00	1.557E-01	1.170E-01
.590	.675	2.101E-01	2.558E-01	4.420E-01	4.014E+00	1.642E-01	1.250E-01
.609	.700	1.781E-01	2.320E-01	3.807E-01	5.517E+00	1.699E-01	1.316E-01
.627	.725	1.475E-01	2.120E-01	3.210E-01	7.571E+00	1.724E-01	1.356E-01
.646	.750	1.187E-01	1.943E-01	2.669E-01	1.016E+01	1.728E-01	1.341E-01
.681	.800	6.944E-02	1.401E-01	1.755E-01	1.498E+01	1.654E-01	9.742E-02
.716	.850	3.409E-02	4.851E-02	1.014E-01	1.243E+01	1.458E-01	3.125E-02
.750	.900	1.316E-02	2.229E-03	4.863E-02	5.210E+00	1.135E-01	9.211E-03
.782	.950	4.354E-03	5.063E-03	1.777E-02	1.986E+00	7.529E-02	3.799E-03
.814	1.000	3.325E-03	1.605E-02	5.471E-03	1.410E+00	3.946E-02	2.691E-03
.845	1.050	5.204E-03	2.138E-02	5.343E-03	1.542E+00	1.429E-02	7.667E-04
.875	1.100	6.319E-03	1.947E-02	9.923E-03	1.567E+00	4.604E-03	2.588E-05
.905	1.150	5.305E-03	1.330E-02	1.331E-02	1.278E+00	8.762E-03	7.635E-04
.933	1.200	2.937E-03	7.062E-03	1.300E-02	7.909E-01	1.863E-02	1.994E-03
.960	1.250	9.486E-04	3.536E-03	9.900E-03	3.466E-01	2.332E-02	2.705E-03
.985	1.300	3.337E-04	2.876E-03	6.398E-03	1.242E-01	1.938E-02	2.638E-03
1.016	1.400	1.386E-03	3.114E-03	3.437E-03	1.912E-01	1.955E-03	1.613E-03
1.035	1.500	5.273E-04	1.782E-03	5.331E-03	4.409E-02	5.675E-03	1.009E-03
1.054	1.600	2.198E-04	9.845E-04	3.629E-03	1.597E-02	4.468E-03	5.265E-04
1.073	1.700	1.061E-04	5.691E-04	1.529E-03	6.916E-03	2.182E-03	3.474E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	-135.4	89.8	.1	80.8	92.3	8.8
.238	.250	-126.0	89.8	.1	77.1	90.1	10.6
.283	.300	-118.9	89.8	.2	72.9	88.4	11.4
.327	.350	-114.2	91.1	-.0	67.6	86.4	6.2
.370	.400	-113.9	91.3	-.1	63.0	84.6	7.6
.412	.450	-108.5	90.9	-.2	59.6	82.9	10.9
.454	.500	-106.8	90.0	-.1	57.4	81.0	14.8
.494	.550	-105.5	88.6	.1	57.7	78.9	19.1
.533	.600	-104.6	86.7	.5	59.2	76.5	23.8
.552	.625	-104.3	85.5	.7	61.0	75.2	26.5
.572	.650	-104.1	84.2	1.0	63.5	73.7	29.6
.590	.675	-104.0	83.0	1.3	66.9	72.2	33.1
.609	.700	-104.1	81.9	1.7	71.6	70.5	37.3
.627	.725	-104.3	81.5	2.2	77.9	68.7	42.5
.646	.750	-104.7	82.5	2.9	86.9	66.8	49.4
.681	.800	-106.6	92.0	4.8	115.3	62.4	68.9
.716	.850	-111.0	109.0	8.2	155.9	57.4	87.7
.750	.900	-121.7	106.8	14.6	-161.1	51.5	69.5
.782	.950	-149.7	-25.1	28.6	-115.2	44.1	34.6
.814	1.000	163.7	-26.7	64.8	-59.0	33.7	29.0
.845	1.050	138.5	-23.2	121.5	-38.0	14.2	26.2
.875	1.100	130.6	-17.3	151.2	-19.2	-37.7	-67.4
.905	1.150	130.2	-7.3	167.9	-5.2	-97.6	-120.6
.933	1.200	136.0	10.5	-177.0	8.7	-120.8	-114.6
.960	1.250	155.0	42.7	-158.7	28.4	-133.6	-102.5
.986	1.300	-141.5	85.5	-133.9	69.2	-144.8	-84.6
1.036	1.400	-69.7	149.6	-58.1	160.9	154.6	-27.6
1.125	1.600	51.3	-78.1	75.6	-65.9	22.8	118.3
1.193	1.800	-169.6	81.4	-111.7	84.5	-155.4	-81.0
1.257	2.000	1.5	-101.1	69.3	-92.0	12.1	101.1

REC = 17 HEADING = 45. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/AVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.185	.200	1.054E+00	5.827E-01	9.891E-01	2.831E-03	1.448E-03	1.018E-03
.227	.250	8.376E-01	5.877E-01	9.760E-01	7.633E-03	4.062E-03	2.559E-03
.267	.300	7.616E-01	5.965E-01	9.563E-01	1.760E-02	9.027E-03	5.977E-03
.305	.350	7.291E-01	6.292E-01	9.297E-01	3.784E-02	1.733E-02	1.452E-02
.341	.400	7.066E-01	6.640E-01	8.974E-01	7.948E-02	3.002E-02	3.070E-02
.375	.450	6.795E-01	6.473E-01	8.484E-01	1.605E-01	4.697E-02	5.126E-02
.407	.500	6.404E-01	5.964E-01	7.808E-01	3.079E-01	6.721E-02	7.625E-02
.433	.550	5.853E-01	5.238E-01	6.947E-01	5.570E-01	8.942E-02	1.049E-01
.466	.600	5.131E-01	4.393E-01	5.929E-01	9.437E-01	1.109E-01	1.350E-01
.480	.625	4.711E-01	3.955E-01	5.377E-01	1.196E+00	1.204E-01	1.495E-01
.493	.650	4.259E-01	3.519E-01	4.807E-01	1.436E+00	1.284E-01	1.629E-01
.506	.675	3.784E-01	3.094E-01	4.231E-01	1.810E+00	1.346E-01	1.744E-01
.519	.700	3.294E-01	2.689E-01	3.659E-01	2.155E+00	1.385E-01	1.834E-01
.530	.725	2.802E-01	2.310E-01	3.103E-01	2.509E+00	1.399E-01	1.892E-01
.541	.750	2.321E-01	1.962E-01	2.574E-01	2.844E+00	1.385E-01	1.910E-01
.552	.800	1.441E-01	1.366E-01	1.634E-01	3.350E+00	1.274E-01	1.807E-01
.582	.850	7.469E-02	9.006E-02	9.024E-02	3.445E+00	1.063E-01	1.513E-01
.599	.900	2.987E-02	5.438E-02	4.050E-02	3.051E+00	7.885E-02	1.071E-01
.615	.950	9.725E-03	2.756E-02	1.278E-02	2.521E+00	5.024E-02	5.949E-02
.629	1.000	8.250E-03	9.963E-03	2.179E-03	2.770E+00	2.598E-02	2.469E-02
.641	1.050	1.533E-02	3.651E-03	1.829E-03	4.826E+00	1.009E-02	1.628E-02
.651	1.100	2.088E-02	8.142E-03	5.137E-03	8.591E+00	3.566E-03	3.545E-02
.659	1.150	1.961E-02	1.518E-02	7.291E-03	1.201E+01	4.310E-03	6.487E-02
.665	1.200	1.253E-02	1.506E-02	6.391E-03	1.205E+01	7.759E-03	7.838E-02
.670	1.250	5.019E-03	7.147E-03	3.474E-03	8.032E+00	9.404E-03	6.423E-02
.673	1.300	1.936E-03	4.660E-04	9.427E-04	3.164E+00	7.478E-03	3.562E-02
.672	1.400	7.094E-03	7.307E-03	1.338E-03	4.184E+00	1.121E-03	2.432E-02
.650	1.600	4.956E-03	1.192E-03	1.283E-04	1.159E+00	1.624E-03	1.702E-02
.597	1.800	3.680E-03	3.218E-03	6.354E-05	4.795E-01	1.006E-03	1.315E-02
.515	2.000	2.953E-03	7.022E-03	1.388E-05	1.119E-01	4.250E-04	8.876E-03

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.185	.200	-136.4	89.4	.2	76.8	86.8	18.8
.227	.250	-125.9	89.4	.2	73.1	86.3	18.8
.267	.300	-118.8	89.3	.2	69.0	85.4	17.0
.305	.350	-114.0	89.8	.2	64.3	84.2	13.7
.341	.400	-110.7	90.2	-.0	59.4	82.4	12.3
.375	.450	-108.3	89.8	-.2	55.4	80.8	13.9
.407	.500	-105.5	88.7	-.3	52.7	78.9	16.4
.438	.550	-103.1	87.1	-.5	51.2	76.7	19.3
.466	.600	-104.1	84.8	-.6	50.9	74.0	22.5
.480	.625	-103.8	83.3	-.7	51.2	72.5	24.1
.493	.650	-103.5	81.5	-.8	51.9	70.9	25.8
.506	.675	-103.4	79.5	-.8	52.9	69.1	27.6
.518	.700	-103.4	77.1	-.9	54.2	67.2	29.5
.530	.725	-103.5	74.5	-1.0	56.0	65.1	31.5
.541	.750	-103.8	71.4	-1.0	58.2	62.9	33.7
.552	.800	-105.5	64.2	-.7	64.3	57.8	38.7
.562	.850	-109.5	55.7	.1	73.7	51.8	45.0
.569	.900	-119.8	45.9	2.4	89.0	44.6	53.7
.582	.950	-148.6	33.9	9.3	114.5	35.6	67.5
.589	1.000	163.7	13.9	38.1	151.5	23.0	95.6
.601	1.050	135.8	-39.1	117.6	-174.2	1.9	153.2
.615	1.100	128.8	-88.8	142.4	-150.0	-43.2	-161.4
.629	1.150	129.2	-102.6	149.4	-132.8	-101.6	-139.4
.641	1.200	135.7	-106.2	153.6	-118.3	-132.1	-124.2
.659	1.250	154.1	-106.3	159.6	-102.6	-150.7	-109.1
.673	1.300	-152.8	-99.8	178.2	-75.8	-167.2	-97.4
.672	1.400	-73.7	67.1	-65.6	32.8	127.0	4.1
.650	1.500	42.8	-110.8	39.2	120.7	-25.6	105.6
.597	1.600	-177.2	91.7	120.1	-126.9	142.1	-124.6
.515	2.000	-7.2	-100.2	-126.0	18.4	-63.5	38.0

REC = 18

HEADING = 45. DEG
SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.178	.200	1.231E+00	6.576E-01	9.843E-01	2.958E-03	9.994E-04	6.108E-04
.215	.250	1.022E+00	6.905E-01	9.702E-01	7.778E-03	3.143E-03	1.905E-03
.250	.300	9.735E-01	7.136E-01	9.470E-01	1.784E-02	7.303E-03	4.830E-03
.282	.350	9.784E-01	7.221E-01	9.117E-01	3.747E-02	1.407E-02	1.036E-02
.311	.400	1.000E+00	7.717E-01	8.726E-01	7.504E-02	2.481E-02	2.669E-02
.337	.450	1.018E+00	7.840E-01	8.195E-01	1.449E-01	3.922E-02	5.223E-02
.361	.500	1.019E+00	7.523E-01	7.486E-01	2.638E-01	5.638E-02	8.620E-02
.382	.550	9.920E-01	6.862E-01	6.610E-01	4.471E-01	7.479E-02	1.285E-01
.400	.600	9.307E-01	5.949E-01	5.596E-01	6.981E-01	9.215E-02	1.772E-01
.407	.625	8.857E-01	5.431E-01	5.055E-01	8.432E-01	9.959E-02	2.025E-01
.415	.650	8.310E-01	4.891E-01	4.502E-01	9.941E-01	1.057E-01	2.273E-01
.421	.675	7.671E-01	4.343E-01	3.946E-01	1.142E+00	1.102E-01	2.506E-01
.427	.700	6.952E-01	3.806E-01	3.398E-01	1.277E+00	1.128E-01	2.711E-01
.432	.725	6.165E-01	3.293E-01	2.863E-01	1.386E+00	1.132E-01	2.874E-01
.437	.750	5.333E-01	2.820E-01	2.367E-01	1.458E+00	1.114E-01	2.983E-01
.444	.800	3.632E-01	2.043E-01	1.482E-01	1.449E+00	1.010E-01	2.990E-01
.448	.850	2.082E-01	1.537E-01	8.008E-02	1.219E+00	8.289E-02	2.675E-01
.449	.900	9.193E-02	1.289E-01	3.447E-02	8.406E-01	6.032E-02	2.066E-01
.447	.950	3.021E-02	1.205E-01	9.824E-03	4.807E-01	3.756E-02	1.299E-01
.443	1.000	2.406E-02	1.134E-01	1.204E-03	3.200E-01	1.887E-02	5.991E-02
.436	1.050	5.617E-02	9.412E-02	1.723E-03	4.257E-01	6.982E-03	1.921E-02
.426	1.100	9.574E-02	6.006E-02	4.720E-03	6.812E-01	2.179E-03	1.902E-02
.414	1.150	1.123E-01	2.349E-02	5.914E-03	8.549E-01	2.312E-03	5.026E-02
.398	1.200	9.215E-02	6.265E-03	4.346E-03	7.726E-01	4.057E-03	8.558E-02
.380	1.250	5.009E-02	2.111E-02	1.693E-03	4.691E-01	4.718E-03	9.614E-02
.359	1.300	2.226E-02	5.375E-02	1.480E-04	1.538E-01	3.565E-03	7.476E-02
.309	1.400	1.123E-01	4.197E-02	1.244E-03	6.739E-02	3.960E-04	4.081E-02
.174	1.600	5.474E-01	5.766E-01	1.492E-04	2.808E-03	6.539E-04	3.713E-02
.014	1.800	6.414E+03	1.328E+04	7.862E-05	2.194E-02	9.846E-04	1.420E+01
.227	2.000	5.301E-02	2.029E-01	8.263E-06	1.773E-02	5.056E-05	2.658E-02

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.178	.200	-135.4	89.0	.2	72.2	77.7	36.1
.215	.250	-125.8	89.0	.2	68.6	79.8	29.4
.250	.300	-118.7	88.8	.2	64.5	80.9	26.1
.282	.350	-113.8	88.5	.1	60.1	81.2	24.9
.311	.400	-110.4	88.7	-.1	55.4	79.7	20.1
.337	.450	-107.9	88.3	-.4	51.3	78.1	18.4
.361	.500	-106.0	87.1	-.7	48.3	76.2	20.5
.382	.550	-104.5	85.1	-1.1	46.4	73.9	22.3
.400	.600	-103.5	83.2	-1.7	45.4	71.2	24.5
.407	.625	-103.1	80.3	-2.0	45.3	69.6	25.6
.415	.650	-102.7	78.1	-2.4	45.3	67.9	26.8
.421	.675	-102.5	75.4	-2.7	45.6	66.0	28.1
.427	.700	-102.3	72.2	-3.2	46.1	64.0	29.4
.432	.725	-102.3	68.4	-3.6	46.9	61.8	30.8
.437	.750	-102.5	63.9	-4.0	47.9	59.5	32.3
.444	.800	-103.6	52.3	-4.9	51.1	54.2	35.5
.443	.850	-106.8	37.0	-5.3	56.5	48.1	39.5
.443	.900	-115.2	19.8	-4.6	66.1	40.8	44.6
.447	.950	-141.0	4.1	.4	84.9	31.8	52.1
.443	1.000	164.0	-7.5	32.7	119.5	19.7	65.7
.435	1.050	135.7	-14.2	119.9	155.6	-.3	99.9
.426	1.100	128.5	-15.4	135.4	176.2	-43.6	166.4
.414	1.150	129.1	-5.0	137.6	-172.6	-104.5	-159.7
.398	1.200	135.4	48.0	137.4	-165.1	-135.6	-143.1
.390	1.250	151.6	110.0	138.6	-157.9	-193.1	-129.0
.359	1.300	163.7	126.2	161.7	-145.8	-167.2	-111.1
.303	1.400	-74.7	150.7	-72.9	-11.3	145.7	-35.9
.174	1.600	44.4	-83.9	80.0	28.7	11.0	46.5
.014	1.800	-160.3	65.6	-60.3	140.3	-129.5	154.9
.227	2.000	-2.8	-102.9	-175.8	-35.4	-45.9	-4.0

REC = 19

HEADING = 45. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 20. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	1.446E+00	7.700E-01	9.837E-01	3.128E-03	7.179E-04	3.635E-04
.204	.250	1.262E+00	9.430E-01	9.679E-01	8.241E-03	2.474E-03	1.208E-03
.233	.300	1.266E+00	8.986E-01	9.406E-01	1.897E-02	5.821E-03	3.128E-03
.259	.350	1.348E+00	9.560E-01	9.050E-01	3.964E-02	1.165E-02	7.858E-03
.281	.400	1.467E+00	9.914E-01	8.527E-01	7.694E-02	1.993E-02	1.646E-02
.300	.450	1.601E+00	1.035E+00	7.919E-01	1.423E-01	3.160E-02	3.753E-02
.314	.500	1.730E+00	1.047E+00	7.175E-01	2.483E-01	4.581E-02	7.348E-02
.325	.550	1.835E+00	1.012E+00	6.272E-01	4.030E-01	6.078E-02	1.237E-01
.333	.600	1.894E+00	9.346E-01	5.245E-01	5.973E-01	7.455E-02	1.884E-01
.339	.625	1.899E+00	8.826E-01	4.702E-01	7.027E-01	8.026E-02	2.253E-01
.336	.650	1.893E+00	8.241E-01	4.133E-01	8.054E-01	8.481E-02	2.641E-01
.337	.675	1.844E+00	7.613E-01	3.605E-01	8.990E-01	8.794E-02	3.037E-01
.336	.700	1.781E+00	6.971E-01	3.093E-01	9.757E-01	8.944E-02	3.426E-01
.332	.725	1.691E+00	6.344E-01	2.556E-01	1.028E+00	8.916E-02	3.788E-01
.325	.750	1.574E+00	5.768E-01	2.075E-01	1.049E+00	8.706E-02	4.101E-01
.314	.800	1.267E+00	4.897E-01	1.245E-01	9.820E-01	7.759E-02	4.491E-01
.299	.850	8.884E-01	4.565E-01	6.287E-02	7.755E-01	6.253E-02	4.433E-01
.280	.900	4.987E-01	4.779E-01	2.417E-02	4.894E-01	4.475E-02	3.872E-01
.257	1.000	1.078E-01	7.104E-01	9.436E-04	6.929E-02	1.448E-02	1.845E-01
.231	1.050	3.970E-01	8.137E-01	2.600E-03	4.353E-02	5.754E-03	7.137E-02
.202	1.100	1.263E+00	7.959E-01	5.003E-03	1.274E-01	1.705E-03	6.501E-03
.168	1.150	2.990E+00	5.696E-01	4.956E-03	2.310E-01	9.461E-04	2.635E-02
.131	1.200	6.337E+00	1.862E-01	2.753E-03	2.705E-01	1.664E-03	1.126E-01
.090	1.250	1.436E+01	7.494E-02	4.606E-04	2.052E-01	2.651E-03	1.677E-01
.045	1.300	6.501E+01	1.699E+01	3.588E-04	8.443E-02	4.143E-03	1.396E-01
.055	1.400	6.204E+01	3.602E+01	2.648E-03	2.478E-02	2.344E-03	8.909E-02
.301	1.600	7.606E-02	9.420E-02	1.605E-04	1.623E-02	4.004E-04	1.859E-02
.606	1.800	3.510E-03	4.492E-03	1.030E-04	6.063E-01	6.523E-04	1.250E-02
.970	2.000	3.196E-04	1.612E-03	5.934E-04	6.404E-02	9.774E-04	7.635E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.177	.200	-135.3	88.5	.1	67.9	61.1	65.4
.204	.250	-125.3	88.5	.0	64.1	69.2	47.8
.233	.300	-118.5	88.4	-.0	59.7	74.1	43.1
.259	.350	-113.6	84.7	-.2	55.2	75.4	36.8
.281	.400	-110.1	87.3	-.3	51.0	75.9	34.5
.300	.450	-107.5	85.5	-.7	46.9	74.8	30.6
.314	.500	-105.5	85.1	-1.2	43.6	72.9	29.2
.325	.550	-103.9	82.8	-1.9	41.1	71.7	29.5
.333	.600	-102.6	79.4	-2.7	39.5	67.9	30.6
.335	.625	-102.0	77.1	-3.2	38.9	66.4	31.3
.336	.650	-101.6	74.4	-3.7	38.5	64.7	32.0
.337	.675	-101.1	71.1	-4.2	38.3	62.9	32.8
.339	.700	-100.8	67.2	-4.8	38.1	60.9	33.7
.335	.725	-100.5	62.5	-5.4	38.1	58.9	34.5
.332	.750	-100.4	56.9	-6.0	38.2	56.7	35.4
.325	.800	-102.7	43.0	-7.0	39.0	52.0	37.1
.314	.850	-102.2	26.2	-7.4	40.4	46.7	38.4
.299	.900	-107.0	8.7	-5.6	43.1	40.7	38.8
.280	.950	-123.6	-7.5	4.0	49.6	33.5	38.3
.257	1.000	180.0	-20.3	60.3	73.5	24.3	38.6
.231	1.050	139.3	-30.2	118.1	139.6	19.6	35.1
.202	1.100	130.6	-38.1	126.7	173.1	-16.9	5.2
.163	1.150	131.5	-46.7	126.9	-176.9	-71.5	-106.3
.131	1.200	137.8	-56.7	124.1	-173.7	-107.0	-116.2
.093	1.250	150.9	105.1	119.3	-174.0	-118.0	-118.8
.045	1.300	-177.8	87.6	-67.7	178.6	-118.3	-145.5
.055	1.400	-66.7	102.2	-88.1	20.3	-152.9	-178.4
.301	1.600	41.5	-73.8	78.6	60.3	-2.0	78.8
.606	1.800	-177.3	112.6	120.4	-121.0	142.2	-119.6
.973	2.000	-1.6	-110.5	-38.4	-135.2	-41.7	91.7

REC = 20 HEADING = 45. DEG SHIP SPEED = 25. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	1.714E+00	9.300E-01	9.805E-01	3.337E-03	7.909E-04	3.417E-04
.192	.250	1.576E+00	1.069E+00	9.718E-01	8.993E-03	2.206E-03	8.679E-04
.216	.300	1.680E+00	1.214E+00	9.442E-01	2.361E-02	5.029E-03	2.169E-03
.236	.350	1.915E+00	1.368E+00	9.040E-01	4.320E-02	9.747E-03	5.134E-03
.251	.400	2.251E+00	1.535E+00	8.523E-01	8.370E-02	1.693E-02	1.162E-02
.262	.450	2.681E+00	1.703E+00	7.842E-01	1.505E-01	2.617E-02	2.368E-02
.264	.500	3.207E+00	1.871E+00	7.007E-01	2.514E-01	3.696E-02	4.439E-02
.269	.550	3.830E+00	2.035E+00	6.042E-01	3.893E-01	4.827E-02	7.741E-02
.266	.600	4.549E+00	2.193E+00	4.986E-01	5.571E-01	5.859E-02	1.263E-01
.262	.625	4.943E+00	2.271E+00	4.439E-01	6.459E-01	6.281E-02	1.573E-01
.258	.650	5.358E+00	2.351E+00	3.890E-01	7.327E-01	6.610E-02	1.926E-01
.252	.675	5.791E+00	2.437E+00	3.347E-01	8.123E-01	6.823E-02	2.316E-01
.245	.700	6.242E+00	2.534E+00	2.819E-01	8.787E-01	6.905E-02	2.729E-01
.237	.725	6.710E+00	2.651E+00	2.316E-01	9.260E-01	6.842E-02	3.147E-01
.228	.750	7.189E+00	2.798E+00	1.851E-01	9.503E-01	6.647E-02	3.558E-01
.206	.800	8.162E+00	3.249E+00	1.081E-01	9.303E-01	5.965E-02	4.419E-01
.179	.850	9.217E+00	4.156E+00	5.123E-02	7.844E-01	4.837E-02	4.805E-01
.148	.900	1.033E+01	5.185E+00	1.854E-02	5.593E-01	3.614E-02	4.747E-01
.112	.950	1.235E+01	1.160E+01	4.572E-03	2.975E-01	2.508E-02	3.936E-01
.072	1.000	2.165E+01	4.000E+01	4.818E-03	9.619E-02	1.725E-02	3.658E-01
.027	1.050	1.014E+03	1.358E+03	1.634E-02	3.723E-03	1.696E-02	1.295E+00
.023	1.100	4.020E+03	3.413E+03	2.100E-02	3.217E-02	1.563E-02	2.431E+00
.078	1.150	5.427E+01	2.324E+01	6.61E-03	1.699E-01	1.325E-03	1.148E-01
.137	1.200	5.355E+00	2.380E-01	2.485E-03	2.872E-01	1.042E-03	6.467E-02
.200	1.250	6.262E-01	1.175E-01	5.457E-04	2.631E-01	2.109E-03	9.455E-02
.269	1.300	6.733E-02	1.502E-01	8.822E-05	1.251E-01	2.097E-03	5.477E-02
.419	1.400	3.871E-02	2.010E-02	1.567E-03	2.492E-01	1.850E-04	3.319E-02
.776	1.600	2.554E-03	5.391E-03	4.854E-04	7.654E-01	1.066E-03	2.077E-03
1.207	1.800	2.293E-04	7.581E-04	4.648E-03	1.622E-02	1.910E-03	4.977E-04
1.712	2.000	3.049E-05	8.996E-05	5.493E-04	4.923E-04	4.536E-04	8.680E-05

PHASE (MOTION-AVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	-136.3	88.1	-.1	84.6	35.7	93.6
.192	.250	-125.7	88.1	-.2	60.6	53.5	79.0
.216	.300	-118.4	87.9	-.3	56.0	62.5	69.1
.236	.350	-113.3	87.5	-.5	51.5	66.9	60.9
.251	.400	-109.7	86.8	-.9	47.2	68.4	53.8
.262	.450	-107.0	85.7	-1.4	43.5	68.6	50.1
.268	.500	-104.8	84.1	-2.0	40.3	67.8	48.0
.269	.550	-103.0	82.0	-2.8	37.7	66.1	47.0
.266	.600	-101.4	79.1	-3.8	35.5	63.7	46.9
.262	.625	-100.6	77.2	-4.4	34.6	62.3	47.0
.258	.650	-99.9	75.1	-5.0	33.8	60.8	47.4
.252	.675	-99.3	72.7	-5.6	33.0	59.2	47.9
.245	.700	-98.6	69.9	-6.2	32.4	57.6	48.6
.237	.725	-98.0	66.9	-6.8	31.8	56.0	49.4
.229	.750	-97.5	63.4	-7.3	31.3	54.3	50.3
.206	.800	-96.7	55.2	-8.1	30.4	52.5	52.5
.179	.850	-96.5	46.4	-8.8	29.7	47.2	55.5
.148	.900	-98.3	37.1	-6	29.2	43.9	59.8
.112	.950	-105.0	28.8	23.8	28.4	43.5	65.7
.072	1.000	-132.5	17.5	85.4	28.5	42.7	76.2
.027	1.050	177.1	-3.7	98.4	28.5	47.1	80.0
.023	1.100	148.8	-43.2	94.0	-164.5	42.5	37.0
.078	1.150	136.4	-59.7	107.6	-171.8	-3.0	-14.7
.137	1.200	137.6	-59.7	117.3	-172.6	-95.5	-107.5
.200	1.250	149.7	119.9	132.5	-170.5	-129.8	-125.1
.269	1.300	-169.5	126.3	-138.7	-161.5	-149.2	-116.8
.419	1.400	-74.5	177.4	-74.1	-18.5	144.4	-26.8
.776	1.500	45.3	-100.1	27.9	-127.3	-16.8	153.0
-1.207	1.600	-167.9	88.7	-129.4	79.9	-170.4	-74.5
-1.712	2.000	8.1	-86.8	146.5	-59.0	38.5	127.9

REC = 21

HEADING = 60. DEG
RAOSHIP SPEED = 5. KNOTS
(MOTION/AVEHT)**2

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	6.535E-01	7.813E-01	9.981E-01	4.354E-03	9.025E-04	9.783E-04
.242	.250	4.410E-01	7.714E-01	9.923E-01	1.150E-02	2.411E-03	2.196E-03
.288	.300	3.550E-01	7.608E-01	9.826E-01	2.655E-01	5.247E-03	4.520E-03
.334	.350	3.120E-01	8.797E-01	9.814E-01	5.834E-02	1.036E-02	1.232E-02
.379	.400	2.835E-01	8.962E-01	9.736E-01	1.233E-01	1.816E-02	2.151E-02
.423	.450	2.604E-01	8.569E-01	9.554E-01	2.543E-01	2.914E-02	3.245E-02
.467	.500	2.387E-01	7.902E-01	9.233E-01	5.211E-01	4.356E-02	4.578E-02
.510	.550	2.165E-01	7.134E-01	8.744E-01	1.057E+00	6.129E-02	6.192E-02
.553	.600	1.923E-01	6.388E-01	8.070E-01	2.217E+00	8.163E-02	8.111E-02
.574	.625	1.803E-01	5.059E-01	7.664E-01	3.226E+00	9.239E-02	9.179E-02
.595	.650	1.674E-01	5.778E-01	7.215E-01	4.732E+00	1.032E-01	1.029E-01
.615	.675	1.542E-01	5.559E-01	6.728E-01	6.907E+00	1.139E-01	1.138E-01
.636	.700	1.408E-01	5.400E-01	6.208E-01	1.032E+01	1.241E-01	1.229E-01
.656	.725	1.269E-01	5.297E-01	5.797E-01	1.475E+01	1.263E-01	1.257E-01
.676	.750	1.131E-01	5.051E-01	5.385E-01	1.981E+01	1.484E-01	1.156E-01
.716	.800	9.646E-02	3.625E-01	4.324E-01	2.383E+01	1.704E-01	5.969E-02
.755	.850	6.221E-02	1.873E-01	3.643E-01	1.567E+01	1.871E-01	2.343E-02
.794	.900	4.148E-02	8.502E-02	2.785E-01	6.481E+00	1.955E-01	1.994E-02
.832	.950	2.510E-02	3.469E-02	1.997E-01	4.249E+00	1.933E-01	2.235E-02
.869	1.000	1.344E-02	1.190E-02	1.321E-01	1.977E+00	1.788E-01	2.162E-02
.905	1.050	6.258E-03	4.826E-03	7.904E-02	8.438E-01	1.522E-01	1.742E-02
.941	1.100	2.795E-03	6.372E-03	4.211E-02	3.860E-01	1.165E-01	1.164E-02
.976	1.150	1.885E-03	1.115E-02	2.017E-02	3.132E-01	7.710E-02	6.229E-03
1.011	1.200	2.192E-03	1.490E-02	1.014E-02	3.924E-01	4.118E-02	2.338E-03
1.045	1.250	2.674E-03	1.524E-02	7.757E-03	4.328E-01	1.640E-02	7.067E-04
1.078	1.300	2.733E-03	1.262E-02	8.374E-03	5.045E-01	7.621E-03	9.543E-04
1.143	1.400	1.398E-03	4.115E-03	9.826E-03	2.892E-01	2.427E-02	2.830E-03
1.264	1.600	2.250E-04	1.961E-03	1.021E-02	3.466E-02	6.602E-03	1.387E-03
1.375	1.800	1.809E-04	9.278E-04	1.185E-03	1.683E-02	5.509E-03	9.084E-04
1.475	2.000	1.149E-04	3.636E-04	6.474E-04	1.373E-02	7.691E-04	5.010E-04

PHASE (MOTION-WAVEVENT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	-145.4	89.8	.1	93.5	93.8	8.1
.242	.250	-134.7	89.8	.1	81.1	91.0	10.5
.288	.300	-126.8	89.9	.2	78.3	89.3	11.5
.334	.350	-121.2	91.2	.1	74.6	87.2	2.4
.379	.400	-117.2	91.4	.2	71.0	85.8	3.9
.423	.450	-114.4	91.1	.2	68.1	84.5	7.8
.467	.500	-112.3	90.4	.2	66.4	83.2	12.4
.510	.550	-110.8	89.5	.0	66.3	81.8	17.4
.553	.600	-109.7	88.4	.3	68.4	80.2	23.1
.574	.625	-109.3	87.8	.4	70.7	79.3	26.4
.595	.650	-109.0	87.3	.6	74.1	78.3	30.4
.615	.675	-108.8	87.1	.8	78.9	77.2	35.2
.636	.700	-108.7	87.5	1.0	85.7	76.1	41.2
.656	.725	-108.6	89.7	1.3	95.0	74.9	49.2
.676	.750	-108.7	93.3	1.6	109.0	73.6	58.2
.716	.800	-109.1	103.1	2.5	139.8	70.9	72.2
.755	.850	-110.1	108.1	3.9	165.0	69.0	82.0
.794	.900	-112.0	106.1	6.0	-176.4	64.8	91.0
.832	.950	-115.4	99.3	9.1	-163.1	61.3	93.3
.869	1.000	-121.5	80.7	13.8	-149.9	57.5	93.1
.905	1.050	-133.0	40.2	20.9	-131.8	53.4	96.3
.941	1.100	-155.5	-3.0	32.1	-102.1	48.5	92.2
.976	1.150	170.2	-21.7	50.4	-63.9	42.2	92.2
1.011	1.200	142.5	-27.2	81.6	-35.6	32.8	90.4
1.045	1.250	127.7	-27.2	122.1	-19.4	13.6	115.3
1.078	1.300	120.5	-24.0	158.3	-7.3	-32.3	177.2
1.143	1.400	117.8	-3.5	-138.5	9.3	-95.5	-138.2
1.264	1.600	-90.3	126.6	-53.2	153.3	-137.4	-53.5
1.375	1.800	-35.5	-126.8	138.4	-144.4	75.9	60.1
1.475	2.000	87.9	.3	123.8	-6.3	-71.4	-172.8

REC = 22 HEADING = 60. DEG SHIP SPEED = 10. KNOTS
PAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.183	.200	7.243E-01	8.310E-01	9.929E-01	4.307E-03	5.633E-04	8.523E-04
.234	.250	5.017E-01	8.310E-01	9.847E-01	1.137E-02	1.737E-03	1.930E-03
.276	.300	4.153E-01	8.373E-01	9.733E-01	2.573E-02	4.089E-03	4.276E-03
.318	.350	3.752E-01	9.304E-01	9.651E-01	5.392E-02	8.442E-03	1.212E-02
.358	.400	3.512E-01	9.788E-01	9.536E-01	1.396E-01	1.532E-02	2.363E-02
.397	.450	3.225E-01	9.641E-01	9.318E-01	2.132E-01	2.494E-02	3.748E-02
.434	.500	3.142E-01	9.121E-01	8.368E-01	4.238E-01	3.742E-02	5.446E-02
.471	.550	2.932E-01	8.392E-01	8.470E-01	8.035E-01	5.252E-02	7.513E-02
.505	.600	2.698E-01	7.566E-01	7.816E-01	1.488E+00	6.952E-02	9.953E-02
.522	.625	2.563E-01	7.144E-01	7.433E-01	2.006E+00	7.843E-02	1.130E-01
.539	.650	2.418E-01	6.728E-01	7.115E-01	2.689E+00	8.735E-02	1.270E-01
.555	.675	2.262E-01	6.325E-01	6.568E-01	3.530E+00	9.612E-02	1.414E-01
.571	.700	2.095E-01	5.943E-01	6.095E-01	4.732E+00	1.044E-01	1.557E-01
.587	.725	1.927E-01	5.586E-01	5.604E-01	6.202E+00	1.121E-01	1.694E-01
.602	.750	1.752E-01	5.254E-01	5.100E-01	8.038E+00	1.195E-01	1.816E-01
.632	.800	1.388E-01	4.629E-01	4.084E-01	1.286E+01	1.291E-01	1.963E-01
.660	.850	1.032E-01	3.893E-01	3.214E-01	1.753E+01	1.367E-01	1.826E-01
.687	.900	7.062E-02	2.765E-01	2.420E-01	1.918E+01	1.384E-01	1.350E-01
.713	.950	4.371E-02	1.468E-01	1.707E-01	1.555E+01	1.323E-01	7.861E-02
.737	1.000	2.370E-02	5.200E-02	1.107E-01	9.528E+00	1.183E-01	4.043E-02
.761	1.050	1.091E-02	1.011E-02	6.387E-02	4.647E+00	9.787E-02	2.161E-02
.782	1.100	4.842E-03	5.758E-03	3.106E-02	2.041E+00	7.344E-02	1.223E-02
.803	1.150	3.581E-03	1.794E-02	1.133E-02	1.239E+00	4.850E-02	6.182E-03
.822	1.200	4.943E-03	3.121E-02	2.585E-03	1.595E+00	2.705E-02	2.066E-03
.840	1.250	6.703E-03	3.716E-02	1.491E-03	2.212E+00	1.229E-02	1.849E-04
.856	1.300	7.312E-03	3.385E-02	4.290E-03	2.592E+00	5.557E-03	6.242E-04
.885	1.400	4.125E-03	1.308E-02	9.201E-03	1.895E+00	9.718E-03	4.784E-03
.928	1.500	8.865E-04	6.923E-03	8.260E-04	2.645E-01	6.072E-03	2.774E-03
.949	1.600	8.741E-04	3.766E-03	1.853E-03	3.500E-01	4.323E-03	2.561E-03
.950	2.000	7.761E-04	2.984E-03	1.750E-04	3.477E-01	8.329E-04	1.740E-03

PHASE (MOTION-AVEAHT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.183	.200	-145.4	89.4	.2	80.5	84.4	17.0
.234	.250	-134.7	89.5	.2	78.2	84.7	18.6
.276	.300	-126.7	89.5	.2	75.6	84.4	17.3
.318	.350	-121.1	90.5	.1	72.5	83.1	9.1
.358	.400	-117.1	90.8	-.1	69.0	82.1	8.1
.397	.450	-114.2	90.4	-.2	65.9	81.2	10.4
.434	.500	-112.1	89.7	-.3	63.6	80.2	13.6
.471	.550	-110.6	88.7	-.4	62.5	78.9	17.2
.505	.600	-109.5	87.4	-.4	62.8	77.3	21.0
.522	.625	-109.0	86.5	-.5	63.6	76.3	23.0
.539	.650	-108.7	85.6	-.5	64.8	75.3	25.2
.555	.675	-108.5	84.7	-.5	66.6	74.1	27.5
.571	.700	-108.3	83.7	-.6	68.9	72.8	30.0
.587	.725	-108.3	82.8	-.7	71.9	71.5	32.8
.602	.750	-108.3	82.0	-.8	75.6	70.0	35.9
.632	.800	-109.7	81.4	-1.0	85.9	66.6	43.5
.660	.850	-109.7	80.9	-1.1	101.5	62.8	53.3
.687	.900	-111.5	80.7	-1.0	120.7	59.6	62.8
.713	.950	-114.7	93.4	-.6	141.5	53.8	68.1
.737	1.000	-120.8	93.1	.2	162.3	48.4	68.4
.761	1.050	-132.6	73.7	1.9	-175.1	42.2	58.8
.782	1.100	-157.0	-.3	5.5	-144.7	35.0	50.2
.803	1.150	165.5	-29.0	13.6	-102.2	25.9	43.2
.822	1.200	138.2	-34.5	38.8	-65.9	13.4	35.9
.840	1.250	125.3	-34.5	110.6	-44.6	-6.8	3.5
.855	1.300	119.7	-31.7	145.7	-31.3	-44.8	-107.8
.885	1.400	119.6	-15.0	163.9	-12.2	-124.7	-114.6
.923	1.500	-96.9	121.7	-150.0	113.7	167.1	-62.4
.949	1.600	-36.5	-143.1	-26.0	-172.2	10.3	60.8
.950	2.000	77.3	-20.1	103.2	-34.3	-125.1	-175.3

REC = 23

HEADING = 60. DEG
RAO (MOTION/NAVENT)**2

SHIP SPEED = 15. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	9.050E-01	8.993E-01	9.891E-01	4.354E-03	3.448E-04	5.743E-04
.225	.250	5.738E-01	9.197E-01	9.793E-01	1.135E-02	1.237E-03	1.431E-03
.265	.300	4.893E-01	9.444E-01	9.563E-01	2.586E-02	3.167E-03	3.544E-03
.302	.350	4.554E-01	9.993E-01	9.502E-01	5.259E-02	6.695E-03	9.483E-03
.337	.400	4.408E-01	1.080E+00	9.358E-01	1.033E-01	1.274E-02	2.262E-02
.370	.450	4.320E-01	1.096E+00	9.107E-01	1.990E-01	2.117E-02	3.942E-02
.402	.500	4.233E-01	1.067E+00	8.729E-01	3.715E-01	3.204E-02	6.077E-02
.431	.550	4.102E-01	1.006E+00	8.215E-01	6.578E-01	4.504E-02	8.760E-02
.453	.600	3.913E-01	9.242E-01	7.563E-01	1.149E+00	5.957E-02	1.203E-01
.471	.650	3.790E-01	8.777E-01	7.189E-01	1.431E+00	6.711E-02	1.387E-01
.484	.675	3.646E-01	8.286E-01	6.787E-01	1.895E+00	7.462E-02	1.582E-01
.495	.675	3.482E-01	7.776E-01	6.360E-01	2.389E+00	8.194E-02	1.785E-01
.507	.700	3.296E-01	7.256E-01	5.913E-01	2.934E+00	8.899E-02	1.993E-01
.513	.725	3.091E-01	6.730E-01	5.450E-01	3.582E+00	9.528E-02	2.201E-01
.524	.750	2.867E-01	6.205E-01	4.979E-01	4.303E+00	1.009E-01	2.402E-01
.543	.800	2.377E-01	5.174E-01	4.028E-01	5.898E+00	1.092E-01	2.754E-01
.555	.850	1.853E-01	4.191E-01	3.110E-01	7.475E+00	1.124E-01	2.982E-01
.581	.900	1.336E-01	3.270E-01	2.271E-01	8.637E+00	1.099E-01	3.021E-01
.595	.950	8.678E-02	2.420E-01	1.546E-01	8.932E+00	1.014E-01	2.822E-01
.606	1.000	4.903E-02	1.651E-01	9.311E-02	8.022E+00	8.771E-02	2.383E-01
.616	1.050	2.315E-02	1.026E-01	5.270E-02	6.239E+00	7.032E-02	1.766E-01
.624	1.100	9.971E-03	5.614E-02	2.387E-02	4.115E+00	5.144E-02	1.093E-01
.629	1.150	7.783E-03	2.886E-02	7.586E-03	2.755E+00	3.346E-02	5.172E-02
.633	1.200	1.276E-02	1.888E-02	9.521E-04	3.024E+00	1.873E-02	1.782E-02
.635	1.250	1.982E-02	1.929E-02	4.203E-04	4.930E+00	8.741E-03	1.398E-02
.635	1.300	2.433E-02	2.139E-02	2.490E-03	7.682E+00	3.786E-03	3.575E-02
.623	1.400	1.774E-02	1.337E-02	4.919E-03	9.265E+00	4.071E-03	9.281E-02
.592	1.500	4.043E-03	1.035E-02	1.178E-03	4.657E-01	2.326E-03	2.468E-02
.524	1.600	9.216E-03	9.098E-03	5.276E-04	1.198E+00	1.164E-03	5.501E-02
.425	2.000	1.239E-02	1.613E-03	3.429E-04	3.399E-01	1.384E-04	4.765E-02

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	-145.4	89.0	.2	76.7	66.5	30.4
.225	.250	-134.7	89.1	.2	74.5	74.0	29.2
.265	.300	-126.7	89.1	.1	71.9	76.7	24.9
.302	.350	-121.0	89.5	.0	68.8	77.6	18.5
.337	.400	-116.9	89.9	-.2	65.2	77.2	14.0
.370	.450	-114.0	89.7	-.4	61.9	76.9	14.4
.402	.500	-111.9	89.9	-.6	59.3	76.3	16.4
.431	.550	-110.3	87.8	-.9	57.5	75.2	18.8
.458	.600	-109.1	86.2	-1.2	56.6	73.6	21.4
.471	.625	-108.7	85.3	-1.4	56.6	72.6	22.7
.484	.650	-108.3	84.2	-1.7	56.7	71.5	24.1
.495	.675	-108.1	83.0	-2.0	57.1	70.3	25.4
.507	.700	-107.9	81.7	-2.3	57.7	69.0	26.8
.518	.725	-107.8	80.2	-2.6	58.6	67.5	28.3
.528	.750	-107.7	78.5	-3.0	59.6	65.9	29.7
.538	.800	-108.0	74.8	-4.0	62.5	62.3	32.9
.553	.850	-108.8	70.4	-5.1	66.3	58.1	36.2
.561	.900	-110.4	65.4	-6.4	71.1	53.4	39.9
.575	.950	-113.3	59.7	-7.8	77.3	48.0	44.0
.605	1.000	-118.9	52.9	-9.3	85.3	42.0	48.6
.615	1.050	-130.2	43.8	-10.7	96.8	35.0	54.2
.624	1.100	-150.3	30.4	-11.6	114.2	27.0	61.6
.629	1.150	163.3	8.2	-10.7	143.5	17.1	74.1
.633	1.200	134.7	-24.3	1.2	-179.9	4.2	103.1
.635	1.250	122.4	-55.5	120.7	-154.1	-15.1	163.5
.635	1.300	117.5	-77.3	139.4	-139.9	-48.3	-161.4
.638	1.400	113.6	-113.7	138.0	-126.8	-132.6	-139.2
.592	1.600	-106.5	128.6	-33.5	-42.0	148.0	-73.7
.554	1.800	-42.3	-77.3	-86.7	27.8	-12.5	29.4
.425	2.000	72.2	-3.0	78.9	167.9	-167.3	164.6

REC = 24

HEADING = 60. DEG
PAO (MOTION/NAVENT)**2

SHIP SPEED = 20. KNOTS

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	8.974E-01	9.930E-01	9.880E-01	4.505E-03	2.972E-04	3.456E-04
.217	.250	6.598E-01	1.047E+00	9.702E-01	1.172E-02	1.001E-03	9.795E-04
.253	.300	5.809E-01	1.094E+00	9.630E-01	2.644E-02	2.559E-03	2.526E-03
.286	.350	5.587E-01	1.121E+00	9.390E-01	5.446E-02	5.244E-03	5.506E-03
.316	.400	5.614E-01	1.231E+00	9.217E-01	1.040E-01	1.049E-02	1.757E-02
.344	.450	5.724E-01	1.285E+00	8.939E-01	1.951E-01	1.789E-02	3.572E-02
.369	.500	5.844E-01	1.289E+00	8.536E-01	3.532E-01	2.738E-02	6.045E-02
.391	.550	5.924E-01	1.253E+00	8.002E-01	6.106E-01	3.865E-02	9.330E-02
.411	.600	5.922E-01	1.184E+00	7.341E-01	1.001E+00	5.123E-02	1.355E-01
.420	.625	5.879E-01	1.138E+00	6.968E-01	1.204E+00	5.770E-02	1.602E-01
.428	.650	5.801E-01	1.087E+00	6.569E-01	1.548E+00	6.412E-02	1.872E-01
.436	.675	5.687E-01	1.030E+00	6.140E-01	1.879E+00	7.035E-02	2.163E-01
.443	.700	5.535E-01	9.684E-01	5.710E-01	2.243E+00	7.622E-02	2.470E-01
.449	.725	5.336E-01	9.035E-01	5.258E-01	2.631E+00	8.157E-02	2.788E-01
.455	.750	5.098E-01	8.367E-01	4.799E-01	3.030E+00	8.623E-02	3.110E-01
.464	.800	4.495E-01	6.986E-01	3.875E-01	3.790E+00	9.288E-02	3.728E-01
.471	.850	3.748E-01	5.653E-01	2.984E-01	4.350E+00	9.510E-02	4.235E-01
.475	.900	2.905E-01	4.465E-01	2.160E-01	4.500E+00	9.223E-02	4.527E-01
.476	.950	2.042E-01	3.511E-01	1.459E-01	4.216E+00	8.425E-02	4.512E-01
.475	1.000	1.255E-01	2.847E-01	8.889E-02	3.430E+00	7.199E-02	4.136E-01
.471	1.050	6.329E-02	2.475E-01	4.691E-02	2.366E+00	5.659E-02	3.415E-01
.465	1.100	2.668E-02	2.319E-01	1.970E-02	1.333E+00	4.039E-02	2.457E-01
.456	1.150	1.895E-02	2.237E-01	5.213E-03	6.377E-01	2.537E-02	1.450E-01
.444	1.200	3.765E-02	2.058E-01	2.632E-04	4.499E-01	1.347E-02	6.324E-02
.430	1.250	7.314E-02	1.653E-01	8.404E-04	7.033E-01	5.689E-03	2.138E-02
.413	1.300	1.102E-01	1.026E-01	3.156E-03	1.149E+00	1.943E-03	2.865E-02
.371	1.400	1.281E-01	1.445E-03	4.109E-03	1.439E+00	1.675E-03	1.362E-01
.256	1.500	5.543E-02	3.243E-01	3.955E-04	9.757E-03	6.197E-04	4.138E-02
.099	1.800	3.709E+00	2.505E+00	3.734E-04	2.179E-01	4.717E-05	3.079E-01
.109	2.000	1.866E+00	1.134E+00	6.833E-04	1.039E-01	2.750E-04	9.643E-02

PHASE (MOTION-WAVEVENT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	-145.4	88.6	.1	72.7	36.7	52.6
.217	.250	-134.6	88.8	.0	70.4	56.1	43.5
.253	.300	-126.6	88.7	.0	67.4	65.0	37.1
.286	.350	-120.8	88.5	-.1	64.1	69.8	34.5
.316	.400	-116.9	89.0	-.4	60.1	70.7	23.0
.344	.450	-113.8	88.7	-.7	56.4	71.1	20.8
.369	.500	-111.6	87.9	-1.0	53.3	70.9	21.3
.391	.550	-109.9	86.7	-1.5	50.9	70.1	22.6
.411	.600	-108.7	85.0	-2.1	49.2	68.7	24.2
.420	.625	-108.2	83.9	-2.5	48.5	67.7	25.0
.428	.650	-107.8	82.7	-2.9	48.0	65.6	25.9
.436	.675	-107.5	81.3	-3.4	47.7	65.4	26.8
.443	.700	-107.2	79.7	-4.0	47.4	64.1	27.7
.449	.725	-107.1	77.9	-4.6	47.3	62.5	28.6
.455	.750	-107.0	75.8	-5.2	47.3	60.9	29.5
.464	.800	-107.0	70.8	-6.7	47.6	57.2	31.4
.471	.850	-107.5	64.2	-8.6	48.3	53.0	33.3
.475	.900	-108.7	55.8	-10.7	49.5	48.2	35.5
.476	.950	-110.9	44.9	-13.1	51.4	42.8	37.8
.475	1.000	-115.4	31.7	-15.7	54.5	35.8	40.6
.471	1.050	-124.7	17.0	-18.6	59.8	30.1	44.1
.465	1.100	-147.3	2.8	-21.3	70.1	22.4	48.8
.456	1.150	167.5	-9.4	-22.7	92.1	13.3	56.2
.444	1.200	134.0	-18.8	-22.7	131.8	1.7	70.7
.430	1.250	120.9	-25.3	130.4	164.5	-15.4	109.0
.413	1.300	116.2	-29.2	131.8	-179.8	-46.5	171.3
.371	1.400	117.7	14.5	122.1	-168.3	-140.0	-148.2
.256	1.600	-115.5	121.5	-58.6	-169.4	172.2	-117.5
.093	1.800	-40.9	-83.0	-123.0	-5.1	119.4	19.1
.100	2.000	89.2	-140.5	65.1	175.2	36.3	-144.1

REC = 25

HEADING = 60. DEG
SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.174	.200	1.004E+00	1.115E+00	9.922E-01	4.727E-03	5.085E-04	2.717E-04
.209	.250	7.629E-01	1.219E+00	9.835E-01	1.230E-02	1.159E-03	6.883E-04
.241	.300	6.954E-01	1.306E+00	9.660E-01	2.783E-02	2.416E-03	1.677E-03
.271	.350	6.952E-01	1.391E+00	9.429E-01	5.720E-02	4.813E-03	3.958E-03
.295	.400	7.269E-01	1.484E+00	9.131E-01	1.095E-01	8.726E-03	9.879E-03
.317	.450	7.759E-01	1.605E+00	8.835E-01	2.012E-01	1.524E-02	2.536E-02
.336	.500	8.325E-01	1.668E+00	8.411E-01	3.553E-01	2.357E-02	4.910E-02
.351	.550	8.907E-01	1.691E+00	7.857E-01	5.962E-01	3.342E-02	8.308E-02
.364	.600	9.446E-01	1.672E+00	7.180E-01	9.434E-01	4.425E-02	1.295E-01
.353	.625	9.679E-01	1.646E+00	6.800E-01	1.159E+00	4.990E-02	1.581E-01
.373	.650	9.875E-01	1.611E+00	6.395E-01	1.400E+00	5.526E-02	1.903E-01
.376	.675	1.003E+00	1.566E+00	5.970E-01	1.663E+00	6.051E-02	2.261E-01
.379	.700	1.012E+00	1.511E+00	5.528E-01	1.941E+00	6.540E-02	2.653E-01
.380	.725	1.015E+00	1.449E+00	5.072E-01	2.225E+00	6.978E-02	3.075E-01
.381	.750	1.011E+00	1.381E+00	4.610E-01	2.503E+00	7.350E-02	3.521E-01
.380	.800	9.759E-01	1.209E+00	3.681E-01	2.988E+00	7.844E-02	4.448E-01
.376	.850	9.021E-01	1.074E+00	2.787E-01	3.280E+00	7.930E-02	5.334E-01
.368	.900	7.875E-01	9.388E-01	1.972E-01	3.282E+00	7.562E-02	6.040E-01
.358	.950	6.354E-01	8.389E-01	1.276E-01	2.955E+00	6.755E-02	6.408E-01
.344	1.000	4.576E-01	8.012E-01	7.297E-02	2.346E+00	5.602E-02	6.300E-01
.326	1.050	2.759E-01	6.275E-01	3.461E-02	1.588E+00	4.259E-02	5.655E-01
.306	1.100	1.248E-01	9.017E-01	1.187E-02	8.619E-01	2.925E-02	4.579E-01
.282	1.150	5.411E-02	1.028E+00	1.898E-03	3.311E-01	1.793E-02	3.378E-01
.255	1.200	1.445E-01	1.318E+00	1.944E-04	7.193E-02	9.613E-03	2.061E-01
.225	1.250	5.147E-01	1.674E+00	2.268E-03	6.496E-02	4.190E-03	9.225E-02
.191	1.300	1.427E+00	2.201E+00	4.695E-03	2.401E-01	1.395E-03	3.225E-02
.114	1.400	9.759E+00	7.473E+00	4.130E-03	5.859E-01	1.593E-04	1.307E-01
.080	1.600	2.471E+00	1.613E+01	1.870E-03	3.174E-02	1.597E-03	1.109E-01
.326	1.800	5.343E-02	1.041E-01	5.731E-04	4.208E-01	2.937E-04	7.786E-02
.625	2.000	3.349E-03	1.664E-03	3.627E-04	2.390E+00	2.132E-04	2.630E-02

PHASE (MOTION-AVANT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.174	.200	-145.4	88.3	-1	69.4	9.8	84.8
.209	.250	-134.6	88.4	-2	67.0	34.5	65.4
.241	.300	-126.5	88.4	-3	63.7	49.3	57.8
.270	.350	-120.7	88.2	-5	60.1	57.3	49.5
.295	.400	-116.5	88.0	-7	56.3	61.7	40.6
.317	.450	-113.5	87.7	-1.1	52.2	63.3	32.3
.336	.500	-111.2	86.9	-1.6	48.8	63.8	30.3
.351	.550	-109.5	85.6	-2.3	46.1	63.3	30.1
.364	.600	-108.2	83.8	-3.1	43.9	62.1	30.8
.363	.625	-107.6	82.7	-3.7	43.0	61.3	31.3
.373	.650	-107.1	81.4	-4.2	42.2	60.2	31.8
.375	.675	-106.7	79.9	-4.9	41.6	59.0	32.4
.378	.700	-106.4	78.2	-5.6	41.0	57.7	33.0
.380	.725	-105.1	76.2	-6.4	40.4	56.2	33.7
.381	.750	-105.8	74.0	-7.3	40.0	54.5	34.4
.380	.800	-105.6	68.4	-9.2	39.3	50.9	35.9
.376	.850	-105.6	61.1	-11.5	38.8	46.8	37.4
.363	.900	-106.0	51.6	-16.8	38.6	42.2	39.0
.354	.950	-107.1	39.7	-19.8	38.7	37.2	40.6
.344	1.000	-109.5	25.9	-22.6	39.1	31.9	42.0
.326	1.050	-114.7	11.3	-24.5	40.1	26.4	42.8
.306	1.100	-128.3	-3.1	-21.1	41.9	20.6	42.0
.282	1.150	-172.1	-17.8	-21.1	45.6	14.4	38.8
.255	1.200	135.6	-30.8	91.3	73.9	7.9	36.2
.225	1.250	119.4	-43.5	121.7	154.0	1.6	26.0
.191	1.300	115.4	-56.8	119.3	179.8	-4.3	-9.1
.114	1.400	120.0	-85.1	103.1	-173.4	-28.7	-67.4
.080	1.600	-117.4	96.1	-71.1	145.7	-118.9	-170.9
.326	1.800	-44.6	-80.4	-105.6	6.0	-31.0	28.5
.625	2.000	71.4	156.0	98.2	-164.3	-160.1	-179.9

REC = 26

HEADING = 75. DEG
SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.197	.200	4.598E-01	9.476E-01	1.001E+00	5.449E-03	1.673E-04	3.877E-04
.246	.250	2.540E-01	9.344E-01	9.986E-01	1.429E-02	5.030E-04	7.802E-04
.294	.300	1.726E-01	9.495E-01	9.966E-01	3.260E-02	1.194E-03	1.744E-03
.342	.350	1.341E-01	1.089E+00	1.007E+00	6.902E-02	2.572E-03	4.903E-03
.389	.400	1.129E-01	1.110E+00	1.015E+00	1.398E-01	4.758E-03	7.841E-03
.436	.450	9.775E-02	1.072E+00	1.019E+00	2.776E-01	7.944E-03	1.093E-02
.483	.500	8.737E-02	1.009E+00	1.016E+00	5.531E-01	1.231E-02	1.483E-02
.529	.550	7.915E-02	9.412E-01	1.002E+00	1.132E+00	1.798E-02	2.008E-02
.575	.600	7.213E-02	8.828E-01	9.738E-01	2.443E+00	2.504E-02	2.712E-02
.599	.625	6.887E-02	8.618E-01	9.537E-01	3.688E+00	2.908E-02	3.132E-02
.621	.650	6.572E-02	8.484E-01	9.294E-01	5.683E+00	3.343E-02	3.565E-02
.644	.675	6.263E-02	8.462E-01	9.071E-01	8.777E+00	3.841E-02	3.943E-02
.667	.700	5.941E-02	8.512E-01	8.994E-01	1.316E+01	4.480E-02	3.974E-02
.689	.725	5.628E-02	8.243E-01	8.906E-01	1.764E+01	5.192E-02	3.217E-02
.712	.750	5.323E-02	7.477E-01	8.805E-01	1.995E+01	5.982E-02	1.867E-02
.757	.800	4.717E-02	5.446E-01	8.560E-01	1.590E+01	7.815E-02	2.197E-03
.801	.850	4.131E-02	4.088E-01	8.243E-01	1.036E+01	1.001E-01	5.715E-03
.845	.900	3.565E-02	3.219E-01	7.838E-01	6.912E+00	1.259E-01	1.404E-02
.889	.950	3.024E-02	2.547E-01	7.326E-01	4.877E+00	1.552E-01	2.145E-02
.932	1.000	2.514E-02	1.975E-01	6.693E-01	3.514E+00	1.872E-01	2.678E-02
.975	1.050	2.043E-02	1.478E-01	5.931E-01	2.585E+00	2.200E-01	2.991E-02
1.018	1.100	1.602E-02	1.030E-01	5.093E-01	1.919E+00	2.543E-01	3.098E-02
1.060	1.150	1.219E-02	6.702E-02	4.159E-01	1.398E+00	2.843E-01	3.021E-02
1.102	1.200	8.757E-03	4.044E-02	3.149E-01	9.803E-01	3.012E-01	2.779E-02
1.144	1.250	6.002E-03	2.215E-02	2.163E-01	6.491E-01	2.964E-01	2.403E-02
1.185	1.300	3.843E-03	1.086E-02	1.739E-01	3.949E-01	2.666E-01	1.939E-02
1.227	1.400	1.272E-03	3.613E-03	4.667E-02	9.052E-02	1.633E-01	9.591E-03
1.426	1.600	4.247E-04	9.465E-03	2.498E-02	2.906E-02	2.160E-02	2.473E-04
1.580	1.800	3.526E-04	3.407E-03	7.001E-03	6.197E-02	6.740E-03	2.240E-03
1.728	2.000	1.605E-05	1.427E-04	2.592E-04	4.042E-03	4.898E-03	8.241E-04

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
197	200	-159.4	89.8	.1	85.6	99.0	7.0
245	250	-150.4	89.8	.1	85.6	93.0	11.8
294	300	-142.5	90.1	.1	84.6	90.0	8.4
342	350	-136.0	91.2	-.1	83.5	87.2	-5.8
389	400	-131.0	91.3	-.3	82.0	86.1	-3.4
435	450	-127.1	91.1	-.3	80.7	85.4	3.1
483	500	-124.2	90.6	-.2	80.1	84.8	10.9
529	550	-121.9	90.1	-.0	81.0	84.1	19.4
576	600	-123.3	89.7	.2	84.6	83.2	29.3
623	625	-119.6	89.7	.4	88.0	82.7	35.5
671	650	-113.1	90.0	.5	93.2	82.1	43.0
718	675	-113.7	91.1	.7	101.2	81.6	52.6
767	700	-118.3	93.8	.9	112.8	81.0	64.2
813	725	-116.1	97.4	1.1	127.4	80.4	77.3
857	750	-117.9	101.0	1.4	143.3	79.9	88.7
901	800	-117.8	104.1	2.1	169.3	78.7	96.6
945	850	-118.0	102.8	3.2	-176.5	77.5	4.7
989	900	-118.4	100.6	4.7	-169.6	76.4	.3
1033	950	-119.2	98.5	6.6	-166.1	75.4	1.6
1077	1000	-120.2	96.5	9.2	-164.5	74.7	3.5
1121	1050	-121.6	94.4	12.7	-163.8	74.4	5.3
1165	1100	-123.3	92.5	18.0	-162.7	75.0	8.3
1209	1150	-125.4	89.8	25.5	-161.7	76.5	11.4
1253	1200	-127.8	85.6	35.5	-160.9	78.9	14.0
1297	1250	-130.9	78.9	48.1	-160.2	81.8	16.4
1341	1300	-135.4	67.1	64.0	-159.4	84.6	18.7
1385	1350	-142.8	11.4	107.3	-155.8	87.2	24.1
1429	1400	122.1	-46.8	-179.3	-4.2	62.9	101.0
1473	1500	88.6	-49.1	-175.9	-.7	-28.2	-165.0
1517	1600	81.8	82.3	92.4	-19.2	-82.3	-138.9

REC = 27

HEADING = 75. DEG
RAOSHIP SPEED = 10. KNOTS
(MOTION/HAVENT)**2

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	4.844E-01	9.743E-01	9.352E-01	5.389E-03	5.394E-05	4.003E-04
.242	.250	2.710E-01	9.688E-01	9.925E-01	1.408E-02	2.625E-04	7.439E-04
.288	.300	1.862E-01	9.614E-01	9.873E-01	3.188E-02	7.494E-04	1.446E-03
.333	.350	1.468E-01	1.117E+00	9.961E-01	6.437E-02	1.954E-03	5.259E-03
.378	.400	1.244E-01	1.159E+00	1.003E+00	1.265E-01	3.910E-03	8.823E-03
.422	.450	1.100E-01	1.138E+00	1.004E+00	2.494E-01	6.763E-03	1.231E-02
.466	.500	9.975E-02	1.087E+00	9.991E-01	4.805E-01	1.063E-02	1.647E-02
.509	.550	9.165E-02	1.024E+00	9.841E-01	9.305E-01	1.559E-02	2.185E-02
.551	.600	8.467E-02	9.635E-01	9.571E-01	1.832E+00	2.164E-02	2.877E-02
.572	.625	8.140E-02	9.374E-01	9.386E-01	2.591E+00	2.506E-02	3.276E-02
.593	.650	7.821E-02	9.155E-01	9.166E-01	3.678E+00	2.873E-02	3.690E-02
.613	.675	7.507E-02	8.981E-01	8.911E-01	5.217E+00	3.263E-02	4.078E-02
.633	.700	7.194E-02	8.836E-01	8.623E-01	7.315E+00	3.673E-02	4.358E-02
.654	.725	6.866E-02	8.703E-01	8.451E-01	9.955E+00	4.213E-02	4.483E-02
.674	.750	6.534E-02	8.581E-01	8.331E-01	1.276E+01	4.833E-02	4.165E-02
.713	.800	5.870E-02	7.515E-01	8.035E-01	1.572E+01	6.241E-02	2.441E-02
.752	.850	5.205E-02	5.893E-01	7.698E-01	1.394E+01	7.868E-02	1.205E-02
.790	.900	4.544E-02	4.503E-01	7.286E-01	1.070E+01	9.705E-02	1.204E-02
.827	.950	3.895E-02	3.443E-01	6.824E-01	7.972E+00	1.172E-01	1.768E-02
.864	1.000	3.269E-02	2.605E-01	6.302E-01	5.961E+00	1.386E-01	2.406E-02
.901	1.050	2.677E-02	1.918E-01	5.722E-01	4.473E+00	1.605E-01	2.914E-02
.935	1.100	2.134E-02	1.353E-01	5.091E-01	3.339E+00	1.813E-01	3.218E-02
.970	1.150	1.646E-02	9.950E-02	4.417E-01	2.446E+00	1.996E-01	3.302E-02
1.004	1.200	1.219E-02	5.384E-02	3.738E-01	1.741E+00	2.137E-01	3.171E-02
1.038	1.250	8.612E-03	2.375E-02	3.080E-01	1.180E+00	2.219E-01	2.849E-02
1.070	1.300	5.816E-03	1.344E-02	2.451E-01	7.393E-01	2.205E-01	2.388E-02
1.134	1.400	2.342E-03	4.132E-03	1.102E-01	1.927E-01	1.827E-01	1.298E-02
1.252	1.600	9.479E-04	1.463E-02	4.246E-02	5.557E-02	4.253E-02	6.083E-04
1.360	1.800	7.774E-04	6.706E-03	6.325E-03	1.355E-01	7.120E-03	3.846E-03
1.456	2.000	4.262E-05	2.527E-04	1.579E-03	7.907E-03	1.227E-02	1.946E-03

PHASE (MOTION-AVEHT)

RE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
195	.200	-159.4	89.5	.1	84.5	68.7	14.2
.242	.250	-150.5	89.5	.2	83.9	74.7	18.5
.283	.300	-142.5	89.6	.2	83.0	77.4	20.0
.333	.350	-136.1	90.9	.0	82.9	76.6	.3
.378	.400	-131.0	91.0	.0	81.8	77.4	.5
.422	.450	-127.1	90.8	.0	80.6	78.3	5.1
.466	.500	-124.2	90.3	.0	80.0	78.8	11.4
.509	.550	-121.9	89.7	.0	80.6	78.9	18.4
.551	.600	-120.2	89.1	.0	83.2	78.5	26.1
.572	.625	-119.6	88.9	.0	85.6	78.2	30.5
.593	.650	-119.1	88.8	.1	89.0	77.8	35.4
.613	.675	-118.6	88.9	.1	93.8	77.3	41.0
.633	.700	-118.3	89.4	.1	100.1	76.7	47.6
.654	.725	-118.0	91.0	.2	108.8	75.1	54.9
.674	.750	-117.9	93.2	.3	119.0	75.6	61.9
.713	.800	-117.8	97.9	.6	140.9	74.3	70.0
.752	.850	-118.0	100.6	1.0	159.0	72.8	77.0
.791	.900	-118.5	109.8	1.7	170.9	71.2	82.6
.827	.950	-119.3	99.7	2.6	179.0	69.5	87.7
.864	1.000	-120.5	98.0	3.8	-177.6	67.7	16.0
.900	1.050	-122.1	96.1	5.5	-174.9	65.9	15.0
.935	1.100	-124.2	93.8	7.8	-173.0	64.2	15.1
.970	1.150	-127.0	90.9	10.8	-171.6	62.5	16.0
1.004	1.200	-130.5	87.0	15.0	-170.1	61.2	17.9
1.033	1.250	-135.0	80.6	21.2	-168.2	60.3	20.4
1.070	1.300	-140.8	68.9	29.1	-166.1	59.7	23.0
1.104	1.400	-153.7	7.8	51.0	-158.6	58.8	29.2
1.252	1.600	128.0	-51.4	110.8	-18.6	46.7	96.1
1.362	1.800	94.7	-53.7	151.0	-6.3	-52.6	-167.9
1.456	2.000	85.0	70.7	-40.6	-5.4	-107.2	-136.1

REC = 28

HEADING = 75. DEG
SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	5.108E-01	1.008E+00	9.932E-01	5.385E-03	6.824E-05	3.321E-04
.237	.250	2.895E-01	1.042E+00	9.882E-01	1.403E-02	1.905E-04	5.983E-04
.282	.300	2.047E-01	1.046E+00	9.823E-01	3.160E-02	5.499E-04	1.218E-03
.325	.350	1.610E-01	1.150E+00	9.883E-01	6.218E-02	1.597E-03	4.960E-03
.367	.400	1.385E-01	1.212E+00	9.936E-01	1.201E-01	3.391E-03	9.129E-03
.403	.450	1.244E-01	1.211E+00	9.939E-01	2.283E-01	5.997E-03	1.309E-02
.443	.500	1.145E-01	1.174E+00	9.871E-01	4.273E-01	9.500E-03	1.750E-02
.483	.550	1.068E-01	1.121E+00	9.713E-01	7.911E-01	1.394E-02	2.326E-02
.527	.600	1.022E-01	1.064E+00	9.450E-01	1.452E+00	1.932E-02	3.042E-02
.564	.625	9.707E-02	1.035E+00	9.277E-01	1.961E+00	2.235E-02	3.453E-02
.582	.650	9.399E-02	1.000E+00	9.075E-01	2.636E+00	2.553E-02	3.889E-02
.603	.675	9.091E-02	9.643E-01	8.843E-01	3.520E+00	2.901E-02	4.330E-02
.618	.700	8.780E-02	9.644E-01	8.587E-01	4.651E+00	3.261E-02	4.743E-02
.635	.725	8.463E-02	9.433E-01	8.303E-01	6.041E+00	3.637E-02	5.078E-02
.670	.750	8.133E-02	9.207E-01	7.995E-01	7.652E+00	4.026E-02	5.272E-02
.703	.800	7.430E-02	8.747E-01	7.632E-01	1.097E+01	5.136E-02	5.242E-02
.735	.850	6.92E-02	7.777E-01	7.251E-01	1.286E+01	6.411E-02	4.350E-02
.766	.900	5.931E-02	6.447E-01	6.830E-01	1.266E+01	7.807E-02	3.435E-02
.796	.950	5.157E-02	5.087E-01	6.372E-01	1.117E+01	9.290E-02	3.039E-02
.825	1.000	4.387E-02	3.877E-01	5.879E-01	9.301E+00	1.081E-01	3.096E-02
.853	1.050	3.679E-02	2.853E-01	5.357E-01	7.499E+00	1.229E-01	3.358E-02
.880	1.100	2.930E-02	2.031E-01	4.812E-01	5.898E+00	1.366E-01	3.616E-02
.907	1.150	2.201E-02	1.333E-01	4.248E-01	4.508E+00	1.481E-01	3.750E-02
.932	1.200	1.710E-02	8.139E-02	3.679E-01	3.324E+00	1.562E-01	3.638E-02
.956	1.250	1.231E-02	4.453E-02	3.115E-01	2.334E+00	1.599E-01	3.449E-02
1.000	1.300	8.165E-03	2.008E-02	2.571E-01	1.533E+00	1.583E-01	3.028E-02
1.000	1.400	3.808E-03	4.302E-03	1.594E-01	4.740E-01	1.369E-01	1.866E-02
1.078	1.600	2.195E-03	2.282E-02	3.516E-02	1.080E-01	4.669E-02	1.506E-03
1.140	1.800	1.752E-03	1.179E-02	5.399E-03	3.240E-01	5.139E-03	5.239E-03
1.185	2.000	9.605E-05	2.664E-04	2.016E-02	3.641E-02	2.069E-02	4.436E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	-159.5	89.1	.1	82.0	5.9	23.1
.237	.250	-150.5	89.2	.1	81.7	40.0	27.6
.282	.300	-142.6	89.3	.1	81.1	55.6	27.1
.325	.350	-135.1	90.4	.1	81.5	62.1	6.8
.367	.400	-131.0	90.6	.2	80.8	66.4	4.7
.403	.450	-127.1	90.4	.3	79.9	69.3	7.8
.449	.500	-124.1	90.0	.3	79.4	71.3	12.8
.483	.550	-121.9	89.3	.4	79.9	72.4	18.5
.527	.600	-120.2	88.6	.4	81.9	72.7	24.6
.545	.625	-119.5	88.3	.5	83.7	72.6	27.8
.564	.650	-119.0	88.0	.5	85.0	72.4	31.3
.582	.675	-118.6	87.8	.6	89.2	72.1	34.9
.600	.700	-118.2	87.7	.7	93.1	71.6	38.8
.618	.725	-117.9	87.9	.8	97.9	70.9	43.1
.635	.750	-117.8	88.3	1.0	103.7	70.2	47.5
.670	.800	-117.7	90.8	1.1	117.9	69.0	55.2
.703	.850	-117.9	93.7	1.2	132.6	67.5	58.3
.735	.900	-118.4	95.8	1.2	145.2	65.7	55.0
.765	.950	-119.2	96.7	1.2	154.9	63.6	47.2
.795	1.000	-120.4	96.6	1.0	162.0	61.3	39.3
.825	1.050	-122.1	95.6	.7	167.0	58.8	33.8
.853	1.100	-124.3	94.0	.1	170.8	56.2	30.6
.880	1.150	-127.2	91.6	.7	173.8	53.4	29.1
.907	1.200	-131.0	89.1	1.9	176.3	50.5	28.7
.932	1.250	-136.2	82.5	3.6	178.8	47.4	29.2
.956	1.300	-143.2	72.6	5.7	-178.3	44.2	30.5
1.000	1.400	-165.6	7.2	12.3	-169.4	37.3	36.2
1.078	1.600	126.1	-57.2	40.5	-41.8	17.8	88.1
1.140	1.800	95.3	-60.8	138.9	-17.5	-80.6	-167.2
1.185	2.000	87.1	62.9	-155.2	-.8	-151.3	-136.6

REC = 29

HEADING = 75. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/NAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.183	.200	5.390E-01	1.052E+00	9.934E-01	5.451E-03	2.537E-04	2.433E-04
.233	.250	3.096E-01	1.068E+00	9.874E-01	1.417E-02	3.376E-04	4.300E-04
.276	.300	2.198E-01	1.088E+00	9.819E-01	3.174E-02	6.474E-04	9.595E-04
.317	.350	1.770E-01	1.196E+00	9.849E-01	6.143E-02	1.579E-03	4.079E-03
.357	.400	1.547E-01	1.276E+00	9.899E-01	1.159E-01	3.300E-03	8.665E-03
.395	.450	1.412E-01	1.296E+00	9.893E-01	2.169E-01	5.766E-03	1.314E-02
.432	.500	1.321E-01	1.278E+00	9.815E-01	3.977E-01	9.046E-03	1.816E-02
.463	.550	1.253E-01	1.238E+00	9.633E-01	7.173E-01	1.317E-02	2.447E-02
.502	.600	1.196E-01	1.189E+00	9.399E-01	1.271E+00	1.815E-02	3.261E-02
.519	.625	1.169E-01	1.163E+00	9.234E-01	1.678E+00	2.094E-02	3.746E-02
.535	.650	1.141E-01	1.137E+00	9.046E-01	2.204E+00	2.393E-02	4.282E-02
.551	.675	1.114E-01	1.113E+00	8.834E-01	2.875E+00	2.710E-02	4.863E-02
.567	.700	1.085E-01	1.089E+00	8.600E-01	3.719E+00	3.044E-02	5.479E-02
.582	.725	1.055E-01	1.067E+00	8.344E-01	4.761E+00	3.393E-02	6.109E-02
.597	.750	1.024E-01	1.046E+00	8.069E-01	6.015E+00	3.756E-02	6.722E-02
.626	.800	9.564E-02	1.002E+00	7.466E-01	9.104E+00	4.515E-02	7.740E-02
.654	.850	8.793E-02	9.530E-01	6.951E-01	1.249E+01	5.465E-02	8.333E-02
.680	.900	7.941E-02	8.732E-01	6.505E-01	1.511E+01	6.596E-02	8.171E-02
.705	.950	7.037E-02	7.551E-01	6.031E-01	1.621E+01	7.767E-02	7.438E-02
.728	1.000	6.093E-02	6.164E-01	5.532E-01	1.579E+01	8.928E-02	6.622E-02
.750	1.050	5.147E-02	4.766E-01	5.014E-01	1.433E+01	1.002E-01	5.994E-02
.771	1.100	4.217E-02	3.493E-01	4.483E-01	1.235E+01	1.097E-01	5.576E-02
.791	1.150	3.333E-02	2.404E-01	3.902E-01	1.016E+01	1.170E-01	5.266E-02
.809	1.200	2.531E-02	1.629E-01	3.401E-01	7.993E+00	1.213E-01	4.950E-02
.825	1.250	1.838E-02	8.762E-02	2.867E-01	5.971E+00	1.220E-01	4.642E-02
.841	1.300	1.277E-02	4.304E-02	2.350E-01	4.173E+00	1.186E-01	4.004E-02
.867	1.400	5.780E-03	7.204E-03	1.410E-01	1.513E+00	9.907E-02	2.594E-02
.904	1.600	4.638E-03	3.769E-02	2.057E-02	2.426E-01	3.278E-02	2.592E-03
.919	1.800	4.512E-03	2.793E-02	5.925E-03	1.224E+00	2.340E-03	7.517E-03
.913	2.000	3.549E-04	1.305E-04	1.752E-02	3.598E-01	1.132E-02	1.037E-02

REC = 29

HEADING = 75. DEG
SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.183	.200	5.390E-01	1.052E+00	9.934E-01	5.451E-03	2.537E-04	2.433E-04
.233	.250	3.096E-01	1.068E+00	9.874E-01	1.417E-02	3.376E-04	4.300E-04
.275	.300	2.188E-01	1.088E+00	9.819E-01	3.174E-02	6.474E-04	9.585E-04
.317	.350	1.770E-01	1.196E+00	9.849E-01	6.143E-02	1.579E-03	4.079E-03
.357	.400	1.547E-01	1.276E+00	9.899E-01	1.159E-01	3.300E-03	8.655E-03
.395	.450	1.412E-01	1.296E+00	9.893E-01	2.165E-01	5.766E-03	1.314E-02
.432	.500	1.321E-01	1.278E+00	9.815E-01	3.977E-01	9.046E-03	1.816E-02
.463	.550	1.253E-01	1.238E+00	9.653E-01	7.173E-01	1.317E-02	2.447E-02
.502	.600	1.196E-01	1.189E+00	9.398E-01	1.271E+00	1.815E-02	3.261E-02
.519	.625	1.163E-01	1.163E+00	9.234E-01	1.678E+00	2.094E-02	3.746E-02
.535	.650	1.141E-01	1.137E+00	9.046E-01	2.204E+00	2.393E-02	4.282E-02
.551	.675	1.114E-01	1.113E+00	8.834E-01	2.875E+00	2.710E-02	4.863E-02
.567	.700	1.085E-01	1.089E+00	8.600E-01	3.719E+00	3.044E-02	5.479E-02
.582	.725	1.055E-01	1.067E+00	8.344E-01	4.761E+00	3.393E-02	6.109E-02
.625	.750	1.024E-01	1.046E+00	8.089E-01	6.015E+00	3.756E-02	6.722E-02
.654	.800	9.564E-02	1.002E+00	7.466E-01	9.104E+00	4.515E-02	7.740E-02
.680	.850	8.793E-02	9.530E-01	6.951E-01	1.249E+01	5.465E-02	8.333E-02
.705	.900	7.941E-02	8.732E-01	6.505E-01	1.511E+01	6.596E-02	8.171E-02
.728	1.000	7.037E-02	7.551E-01	5.031E-01	1.621E+01	7.767E-02	7.438E-02
.750	1.050	6.094E-02	6.164E-01	5.532E-01	1.579E+01	8.928E-02	6.622E-02
.771	1.100	5.147E-02	4.766E-01	5.014E-01	1.433E+01	1.002E-01	5.994E-02
.791	1.150	4.217E-02	3.493E-01	4.483E-01	1.235E+01	1.097E-01	5.576E-02
.809	1.200	3.333E-02	2.404E-01	3.942E-01	1.016E+01	1.170E-01	5.266E-02
.825	1.250	2.531E-02	1.529E-01	3.401E-01	7.993E+00	1.213E-01	4.950E-02
.867	1.400	1.838E-02	8.753E-02	2.867E-01	5.971E+00	1.220E-01	4.542E-02
.841	1.300	1.277E-02	4.304E-02	2.350E-01	4.173E+00	1.186E-01	4.004E-02
.904	1.600	5.780E-03	7.204E-03	1.410E-01	1.513E+00	9.907E-02	2.594E-02
.919	1.800	4.634E-03	3.769E-02	2.057E-02	2.423E-01	3.278E-02	2.592E-03
.913	2.000	4.512E-03	2.753E-02	5.925E-03	1.224E+00	2.340E-03	7.517E-03
		3.549E-04	1.305E-04	1.752E-02	3.598E-01	1.132E-02	1.037E-02

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	-159.5	88.8	.1	79.1	-18.2	35.0
.233	.250	-150.6	88.9	.0	73.9	7.5	40.7
.276	.300	-142.6	89.0	.0	73.5	29.6	35.7
.317	.350	-136.1	89.9	-2	73.5	44.6	14.4
.357	.400	-131.0	90.2	-3	77.9	53.3	9.7
.395	.450	-127.1	90.0	-4	76.9	58.9	11.3
.432	.500	-124.1	89.5	-5	75.1	62.4	15.1
.468	.550	-121.8	88.9	-7	75.1	64.6	19.7
.502	.600	-120.1	88.1	-9	77.1	65.7	24.6
.513	.625	-119.5	87.6	-1.0	78.1	65.0	27.1
.535	.650	-118.9	87.1	-1.1	79.4	66.0	29.6
.551	.675	-118.5	85.7	-1.3	81.3	65.9	32.3
.567	.700	-118.1	86.3	-1.5	83.5	65.6	35.0
.582	.725	-117.8	85.9	-1.8	85.3	65.1	37.8
.597	.750	-117.6	85.7	-2.0	83.6	64.5	40.8
.625	.800	-117.5	85.6	-2.7	91.7	62.9	46.9
.654	.850	-117.6	85.7	-3.3	107.9	61.2	52.9
.683	.900	-118.1	88.5	-3.9	118.7	59.5	57.0
.705	.950	-119.9	90.3	-4.5	128.8	57.3	58.6
.728	1.000	-120.1	91.6	-5.2	137.4	54.9	57.6
.750	1.050	-121.7	92.0	-5.9	144.4	52.1	54.9
.771	1.100	-123.9	91.7	-6.5	150.0	49.1	51.6
.791	1.150	-126.7	90.5	-7.2	154.5	45.9	48.6
.809	1.200	-130.6	88.2	-7.8	158.4	42.4	46.4
.825	1.250	-135.7	84.1	-8.3	161.8	38.6	45.1
.841	1.300	-142.9	76.7	-8.6	165.2	34.6	44.7
.857	1.400	-165.9	25.4	-8.7	174.3	25.7	46.7
.904	1.600	122.6	-60.1	-3	-64.8	1.0	83.9
.919	1.800	96.2	-67.0	118.0	-32.4	-98.4	-160.0
.913	2.000	103.5	29.5	131.9	-14.9	171.9	-133.3

REC = 30 HEADING = 75. DEG SHIP SPEED = 25. KNOTS RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.186	.200	5.693E-01	1.107E+00	9.990E-01	5.577E-03	6.776E-04	1.752E-04
.229	.250	3.316E-01	1.139E+00	9.926E-01	1.440E-02	7.849E-04	3.131E-04
.269	.300	2.379E-01	1.176E+00	9.880E-01	3.227E-02	1.133E-03	7.209E-04
.308	.350	1.951E-01	1.264E+00	9.879E-01	6.249E-02	2.090E-03	2.872E-03
.346	.400	1.734E-01	1.361E+00	9.934E-01	1.154E-01	3.768E-03	7.438E-03
.381	.450	1.612E-01	1.403E+00	9.926E-01	2.121E-01	6.230E-03	1.222E-02
.415	.500	1.534E-01	1.407E+00	9.845E-01	3.833E-01	9.447E-03	1.765E-02
.447	.550	1.482E-01	1.386E+00	9.684E-01	6.775E-01	1.346E-02	2.451E-02
.478	.600	1.441E-01	1.350E+00	9.437E-01	1.168E+00	1.828E-02	3.353E-02
.492	.625	1.422E-01	1.323E+00	9.281E-01	1.518E+00	2.098E-02	3.901E-02
.506	.650	1.402E-01	1.306E+00	9.104E-01	1.959E+00	2.388E-02	4.522E-02
.520	.675	1.382E-01	1.285E+00	8.907E-01	2.509E+00	2.697E-02	5.220E-02
.534	.700	1.360E-01	1.258E+00	8.691E-01	3.187E+00	3.022E-02	5.993E-02
.546	.725	1.336E-01	1.235E+00	8.456E-01	4.011E+00	3.365E-02	6.838E-02
.559	.750	1.310E-01	1.211E+00	8.204E-01	4.999E+00	3.721E-02	7.747E-02
.583	.800	1.250E-01	1.165E+00	7.657E-01	7.508E+00	4.473E-02	9.700E-02
.605	.850	1.178E-01	1.116E+00	7.062E-01	1.070E+01	5.280E-02	1.168E-01
.625	.900	1.092E-01	1.059E+00	6.435E-01	1.433E+01	6.058E-02	1.345E-01
.643	.950	9.929E-02	9.873E-01	5.833E-01	1.789E+01	6.905E-02	1.431E-01
.660	1.000	8.844E-02	8.961E-01	5.315E-01	2.064E+01	7.861E-02	1.558E-01
.675	1.050	7.823E-02	7.785E-01	4.780E-01	2.220E+01	8.729E-02	1.566E-01
.689	1.100	6.966E-02	6.425E-01	4.236E-01	2.239E+01	9.444E-02	1.518E-01
.701	1.150	5.175E-02	5.014E-01	3.687E-01	2.131E+01	9.944E-02	1.431E-01
.711	1.200	4.035E-02	3.666E-01	3.141E-01	1.911E+01	1.017E-01	1.315E-01
.719	1.250	2.970E-02	2.488E-01	2.608E-01	1.631E+01	1.006E-01	1.173E-01
.726	1.300	2.087E-02	1.525E-01	2.097E-01	1.293E+01	9.612E-02	1.017E-01
.734	1.400	9.447E-03	3.816E-02	1.188E-01	6.323E+00	7.719E-02	6.552E-02
.739	1.600	9.973E-03	5.057E-02	1.209E-02	4.623E-01	2.271E-02	4.848E-03
.693	1.800	1.391E-02	8.314E-02	5.373E-03	6.513E+00	9.828E-04	2.992E-02
.641	2.000	2.548E-03	1.896E-02	1.061E-02	4.851E+00	6.550E-03	7.555E-02

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.186	.200	-159.6	88.4	-.1	75.2	-22.9	50.6
.229	.250	-150.6	88.6	-.1	75.3	-6.6	58.1
.269	.300	-142.6	88.7	-.2	75.8	11.8	47.7
.308	.350	-135.1	89.3	-.4	75.2	28.3	24.7
.346	.400	-131.0	89.7	-.5	74.3	40.3	15.8
.381	.450	-127.1	89.5	-.6	73.2	47.9	15.8
.415	.500	-124.0	89.1	-.8	72.1	52.9	18.5
.447	.550	-121.8	88.4	-1.0	71.6	56.1	22.1
.478	.600	-120.0	87.5	-1.3	71.8	58.0	26.0
.492	.625	-119.4	87.0	-1.5	72.2	58.5	27.9
.506	.650	-118.8	86.5	-1.7	72.9	58.9	29.9
.520	.675	-118.3	85.9	-2.0	73.8	58.9	31.8
.534	.700	-118.0	85.3	-2.3	74.9	58.8	33.7
.546	.725	-117.7	84.7	-2.6	76.3	58.6	35.6
.559	.750	-117.5	84.0	-3.0	78.0	58.2	37.5
.573	.800	-117.3	82.9	-3.9	82.1	56.9	41.5
.585	.850	-117.4	81.9	-4.9	87.2	55.1	45.5
.595	.900	-117.8	81.3	-6.1	93.0	52.9	49.4
.603	.950	-118.5	81.1	-7.5	99.3	50.5	53.1
.609	1.000	-118.6	81.3	-8.7	105.9	48.1	56.2
.615	1.050	-121.1	81.4	-10.1	111.8	45.3	58.4
.619	1.100	-123.1	81.3	-11.6	117.1	42.3	59.9
.701	1.150	-125.8	80.6	-13.2	121.6	38.9	60.8
.711	1.200	-129.5	79.2	-15.0	125.4	35.2	61.3
.719	1.250	-134.5	76.6	-16.8	128.7	31.3	61.6
.726	1.300	-141.5	72.2	-18.6	131.5	27.1	61.8
.734	1.400	-160.3	49.7	-22.3	137.5	17.7	63.0
.739	1.500	118.4	-63.9	-24.1	-123.6	-7.4	82.0
.699	1.800	94.4	-94.7	106.4	-81.5	-117.0	-135.7
.641	2.000	105.0	-161.2	100.3	-101.3	153.3	-136.2

REC = 31 HEADING = 90. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/VAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.613E-01	9.867E-01	1.002E+00	5.90E-03	3.59E-05	1.606E-05
.250	.250	1.647E-01	9.689E-01	1.002E+00	1.53E-02	4.18E-05	1.262E-05
.300	.300	8.869E-02	1.010E+00	1.004E+00	3.54E-02	4.02E-05	4.055E-05
.350	.350	5.368E-02	1.140E+00	1.020E+00	7.45E-02	3.57E-05	4.292E-04
.400	.400	3.504E-02	1.150E+00	1.036E+00	1.49E-01	3.63E-05	3.439E-04
.450	.450	2.418E-02	1.104E+00	1.050E+00	2.93E-01	4.49E-05	5.668E-05
.500	.500	1.741E-02	1.038E+00	1.060E+00	5.89E-01	6.477E-05	9.170E-05
.550	.550	1.296E-02	9.709E-01	1.051E+00	1.23E+00	1.04E-04	1.116E-03
.600	.600	9.906E-03	9.162E-01	1.050E+00	2.80E+00	1.77E-04	4.706E-03
.625	.625	8.735E-03	8.947E-01	1.039E+00	4.41E+00	2.32E-04	8.730E-03
.650	.650	7.776E-03	8.834E-01	1.038E+00	7.03E+00	2.85E-04	1.481E-02
.675	.675	6.981E-03	8.612E-01	1.051E+00	1.05E+01	3.41E-04	2.199E-02
.700	.700	6.289E-03	7.867E-01	1.065E+00	1.34E+01	4.15E-04	2.749E-02
.725	.725	5.681E-03	6.775E-01	1.081E+00	1.36E+01	5.15E-04	2.708E-02
.750	.750	5.147E-03	5.893E-01	1.097E+00	1.07E+01	6.50E-04	2.240E-02
.800	.800	4.258E-03	5.071E-01	1.134E+00	5.90E+00	1.06E-03	1.384E-02
.850	.850	3.557E-03	4.701E-01	1.176E+00	3.41E+00	1.77E-03	9.639E-03
.900	.900	2.998E-03	4.385E-01	1.219E+00	2.15E+00	2.96E-03	7.583E-03
.950	.950	2.546E-03	4.057E-01	1.260E+00	1.41E+00	4.84E-03	6.422E-03
1.000	1.000	2.188E-03	3.698E-01	1.298E+00	1.05E+00	7.72E-03	5.489E-03
1.050	1.050	1.914E-03	3.316E-01	1.341E+00	8.32E-01	1.22E-02	4.469E-03
1.100	1.100	1.661E-03	2.978E-01	1.349E+00	6.81E-01	1.86E-02	3.923E-03
1.150	1.150	1.409E-03	2.676E-01	1.390E+00	5.68E-01	2.60E-02	3.684E-03
1.200	1.200	1.156E-03	2.406E-01	1.453E+00	4.77E-01	3.25E-02	3.654E-03
1.250	1.250	9.202E-04	2.164E-01	1.484E+00	4.06E-01	3.62E-02	3.767E-03
1.300	1.300	7.196E-04	1.947E-01	1.506E-01	3.49E-01	3.65E-02	3.978E-03
1.400	1.400	4.521E-04	1.507E-01	4.560E-01	2.59E-01	2.95E-02	3.981E-03
1.600	1.600	2.257E-04	6.236E-02	1.506E-01	1.60E-01	1.35E-02	3.760E-03
1.800	1.800	1.349E-04	4.099E-02	6.302E-02	9.95E-02	6.30E-03	3.371E-03
2.000	2.000	7.939E-05	1.855E-02	2.482E-02	5.91E-02	2.98E-03	2.741E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-178.7	89.7	.1	89.7	-107.3	2.1
.250	.250	-176.8	89.8	.1	90.4	-97.1	47.6
.300	.300	-174.7	90.3	.1	91.7	-85.4	-17.5
.350	.350	-172.5	91.1	-.2	93.8	-66.0	-53.7
.400	.400	-170.6	91.1	-.3	95.5	-50.4	-59.8
.450	.450	-168.9	90.9	-.3	97.4	-39.6	-61.2
.500	.500	-167.3	90.7	-.2	100.1	-33.1	113.2
.550	.550	-165.9	90.7	.0	104.6	-29.2	116.5
.600	.600	-164.6	91.3	.2	112.8	-26.1	122.9
.625	.625	-164.0	92.2	.3	119.7	-24.5	129.0
.650	.650	-163.5	94.2	.4	130.0	-21.1	138.2
.675	.675	-163.1	97.5	.6	144.6	-16.0	153.4
.700	.700	-162.8	100.7	.8	163.2	-11.0	174.1
.725	.725	-162.5	102.1	1.0	-177.7	-6.3	-163.7
.750	.750	-162.3	101.2	1.2	-162.0	-1.9	-144.5
.800	.800	-161.8	97.4	1.9	-143.3	6.2	-118.7
.850	.850	-161.3	94.3	2.8	-134.6	13.7	-104.2
.900	.900	-160.8	92.0	4.0	-130.4	21.1	-96.0
.950	.950	-160.3	89.9	5.6	-128.3	28.7	-91.6
1.000	1.000	-159.8	88.2	7.8	-127.6	37.3	-88.2
1.050	1.050	-159.8	87.6	11.8	-127.7	49.0	-81.3
1.100	1.100	-159.2	86.7	16.9	-128.7	62.3	-75.0
1.150	1.150	-158.2	85.6	23.0	-130.4	77.1	-69.4
1.200	1.200	-157.2	84.1	29.2	-132.7	92.3	-65.0
1.250	1.250	-156.7	82.2	34.7	-135.7	106.8	-62.0
1.300	1.300	-157.1	80.0	38.7	-139.2	119.6	-60.3
1.400	1.400	-162.2	75.7	43.3	-145.6	141.5	-56.5
1.500	1.500	-178.2	65.5	41.8	-158.6	165.9	-49.1
1.600	1.600	171.5	50.9	31.6	-173.8	169.1	-48.3
2.000	2.000	153.8	31.1	17.4	169.1	161.6	-52.0

REC = 32

HEADING = 90. DEG
RPO (NOTION/HAVENT)**2

SHIP SPEED = 10. KNOTS

WE	M	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.614E-01	9.792E-01	9.982E-01	5.878E-03	1.366E-04	5.260E-05
.250	.250	1.648E-01	9.650E-01	9.971E-01	1.550E-02	1.809E-04	2.880E-05
.300	.300	8.870E-02	1.004E+00	9.995E-01	3.507E-02	2.225E-04	9.323E-05
.350	.350	5.377E-02	1.129E+00	1.016E+00	7.276E-02	2.484E-04	6.018E-04
.400	.400	3.513E-02	1.142E+00	1.032E+00	1.464E-01	2.875E-04	4.746E-04
.450	.450	2.426E-02	1.100E+00	1.047E+00	2.892E-01	3.401E-04	1.039E-04
.500	.500	1.748E-02	1.037E+00	1.056E+00	5.746E-01	4.160E-04	6.525E-05
.550	.550	1.302E-02	9.720E-01	1.057E+00	1.178E+00	5.351E-04	9.985E-04
.600	.600	9.963E-03	9.160E-01	1.047E+00	2.542E+00	7.267E-04	4.184E-03
.625	.625	8.783E-03	8.890E-01	1.037E+00	3.778E+00	8.610E-04	7.408E-03
.650	.650	7.828E-03	8.690E-01	1.037E+00	5.498E+00	9.852E-04	1.141E-02
.675	.675	7.032E-03	8.367E-01	1.050E+00	7.337E+00	1.091E-03	1.479E-02
.700	.700	6.337E-03	7.768E-01	1.055E+00	8.434E+00	1.226E-03	1.653E-02
.725	.725	5.729E-03	5.983E-01	1.081E+00	8.196E+00	1.395E-03	1.588E-02
.750	.750	5.194E-03	6.286E-01	1.098E+00	7.028E+00	1.607E-03	1.380E-02
.800	.800	4.302E-03	5.404E-01	1.137E+00	4.473E+00	2.203E-03	9.772E-03
.850	.850	3.596E-03	4.894E-01	1.180E+00	2.843E+00	3.125E-03	7.495E-03
.900	.900	3.033E-03	4.490E-01	1.225E+00	1.902E+00	4.522E-03	6.285E-03
.950	.950	2.577E-03	4.109E-01	1.268E+00	1.332E+00	6.583E-03	5.570E-03
1.000	1.000	2.214E-03	3.719E-01	1.307E+00	9.828E-01	9.499E-03	4.879E-03
1.050	1.050	1.936E-03	3.320E-01	1.349E+00	7.950E-01	1.359E-02	3.922E-03
1.100	1.100	1.682E-03	2.970E-01	1.356E+00	6.599E-01	1.900E-02	3.401E-03
1.150	1.150	1.435E-03	2.659E-01	1.298E+00	5.541E-01	2.512E-02	3.171E-03
1.200	1.200	1.190E-03	2.381E-01	1.161E+00	4.716E-01	3.048E-02	3.141E-03
1.250	1.250	9.601E-04	2.134E-01	9.695E-01	4.050E-01	3.358E-02	3.253E-03
1.300	1.300	7.594E-04	1.913E-01	7.721E-01	3.501E-01	3.405E-02	3.464E-03
1.400	1.400	4.814E-04	1.473E-01	4.302E-01	2.623E-01	2.762E-02	3.478E-03
1.600	1.600	2.316E-04	7.999E-02	1.362E-01	1.623E-01	1.330E-02	3.304E-03
1.800	1.800	1.345E-04	3.980E-02	5.866E-02	9.926E-02	6.587E-03	3.050E-03
2.000	2.000	7.869E-05	1.812E-02	2.364E-02	5.862E-02	3.169E-03	2.583E-03

PHASE (MOTION-WAVE)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-178.8	89.5	.1	88.6	-73.5	6.0
.250	.250	-176.8	89.5	.1	89.7	-66.5	32.2
.300	.300	-174.7	90.1	.1	91.7	-57.4	-5.5
.350	.350	-172.6	91.0	-.1	95.1	-41.1	-37.4
.400	.400	-170.6	91.0	-.2	97.4	-30.7	-43.5
.450	.450	-168.9	90.8	-.2	99.7	-24.5	-39.9
.500	.500	-167.4	90.6	-.1	103.0	-21.4	107.4
.550	.550	-165.9	90.6	.1	108.4	-20.5	122.0
.600	.600	-164.7	91.2	.2	118.2	-20.5	130.7
.625	.625	-164.1	92.1	.2	125.9	-20.6	137.5
.650	.650	-163.6	94.0	.3	136.5	-18.8	146.8
.675	.675	-163.3	95.6	.5	150.0	-15.0	160.5
.700	.700	-163.0	98.8	.7	155.4	-11.2	177.8
.725	.725	-162.7	100.0	.9	179.8	-7.5	-164.3
.750	.750	-162.4	99.8	1.2	-157.3	-3.8	-148.2
.800	.800	-161.9	97.6	1.9	-150.8	3.5	-124.4
.850	.850	-161.4	95.1	2.9	-142.1	10.6	-109.7
.900	.900	-160.9	92.9	4.2	-137.4	17.6	-101.2
.950	.950	-160.4	90.9	5.9	-134.9	24.8	-96.5
1.000	1.000	-160.0	89.2	8.2	-133.8	32.8	-93.1
1.050	1.050	-160.0	88.5	12.3	-133.7	43.7	-86.3
1.100	1.100	-159.6	87.6	17.5	-134.4	56.2	-79.8
1.150	1.150	-158.7	86.4	23.7	-135.9	70.0	-74.0
1.200	1.200	-157.8	84.8	30.2	-137.9	84.4	-69.3
1.250	1.250	-157.3	82.9	36.0	-140.6	98.3	-66.0
1.300	1.300	-157.4	80.6	40.5	-143.8	110.8	-64.2
1.400	1.400	-161.6	76.2	45.1	-149.6	132.2	-60.4
1.600	1.600	-176.6	65.6	41.7	-151.8	156.9	-52.9
1.800	1.800	172.7	50.7	30.2	-176.5	162.1	-52.3
2.000	2.000	160.6	30.6	15.8	166.5	157.0	-55.8

REC = 33

HEADING = 90. DEG
SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.615E-01	9.697E-01	9.961E-01	5.854E-03	3.594E-04	8.792E-05
.250	.250	1.649E-01	9.596E-01	9.948E-01	1.548E-02	4.741E-04	4.785E-05
.300	.300	8.889E-02	9.959E-01	9.978E-01	3.489E-02	5.884E-04	1.543E-04
.350	.350	5.387E-02	1.113E+00	1.016E+00	7.088E-02	6.887E-04	8.219E-04
.400	.400	3.528E-02	1.128E+00	1.034E+00	1.420E-01	7.976E-04	6.534E-04
.450	.450	2.434E-02	1.092E+00	1.049E+00	2.803E-01	9.167E-04	1.769E-04
.500	.500	1.755E-02	1.033E+00	1.059E+00	5.516E-01	1.065E-03	3.820E-05
.550	.550	1.209E-02	9.714E-01	1.060E+00	1.097E+00	1.278E-03	8.362E-04
.600	.600	1.002E-02	8.122E-01	1.052E+00	2.135E+00	1.605E-03	3.474E-03
.650	.650	8.844E-03	8.800E-01	1.043E+00	3.059E+00	1.828E-03	5.813E-03
.700	.700	7.081E-03	8.163E-01	1.058E+00	4.779E+00	2.183E-03	9.250E-03
.750	.750	6.388E-03	7.657E-01	1.073E+00	5.131E+00	2.372E-03	9.488E-03
.800	.800	5.776E-03	7.078E-01	1.090E+00	4.934E+00	2.602E-03	8.915E-03
.850	.850	5.239E-03	6.535E-01	1.108E+00	4.435E+00	2.879E-03	7.983E-03
.900	.900	4.343E-03	5.701E-01	1.148E+00	3.170E+00	3.619E-03	6.316E-03
.950	.950	3.633E-03	5.113E-01	1.192E+00	2.210E+00	4.695E-03	5.363E-03
1.000	1.000	3.064E-03	4.633E-01	1.238E+00	1.573E+00	6.228E-03	4.863E-03
1.050	1.050	2.604E-03	4.201E-01	1.282E+00	1.152E+00	8.373E-03	4.571E-03
1.100	1.100	2.236E-03	3.776E-01	1.321E+00	8.700E-01	1.125E-02	4.144E-03
1.150	1.150	1.958E-03	3.354E-01	1.361E+00	7.288E-01	1.488E-02	3.295E-03
1.200	1.200	1.698E-03	2.988E-01	1.399E+00	6.135E-01	1.946E-02	2.828E-03
1.250	1.250	1.458E-03	2.663E-01	1.431E+00	5.226E-01	2.454E-02	2.622E-03
1.300	1.300	1.220E-03	2.376E-01	1.487E+00	4.501E-01	2.903E-02	2.603E-03
1.350	1.350	9.960E-04	2.120E-01	9.917E-01	3.933E-01	3.176E-02	2.718E-03
1.400	1.400	7.969E-04	1.892E-01	7.846E-01	3.399E-01	3.234E-02	2.933E-03
1.450	1.450	5.105E-04	1.447E-01	4.188E-01	2.574E-01	2.658E-02	2.973E-03
1.500	1.500	2.387E-04	7.802E-02	1.220E-01	1.599E-01	1.339E-02	2.868E-03
1.550	1.550	1.347E-04	3.874E-02	5.876E-02	9.703E-02	6.956E-03	2.751E-03
2.000	2.000	7.811E-05	1.771E-02	2.228E-02	5.686E-02	3.375E-03	2.439E-03

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-178.8	89.2	.1	87.3	-60.9	9.8
250	250	-176.8	89.3	.1	89.0	-55.4	27.5
300	300	-174.8	89.9	.0	91.8	-47.7	.7
350	350	-172.6	90.8	-.1	96.4	-33.5	-26.6
400	400	-170.7	90.9	-.2	99.5	-24.6	-32.7
450	450	-169.0	90.7	-.2	102.5	-19.3	-29.7
500	500	-167.4	90.5	-.1	106.7	-16.7	102.3
550	550	-165.0	90.5	.0	113.4	-16.3	129.8
600	600	-164.8	91.3	.1	124.6	-17.0	140.1
625	625	-164.2	92.1	.2	132.9	-17.6	147.0
650	650	-163.7	93.7	.2	143.2	-16.3	155.6
675	675	-163.4	95.7	.4	154.9	-13.1	167.2
700	700	-163.1	97.3	.7	167.1	-9.8	-178.9
725	725	-162.8	98.1	.9	178.4	-6.6	-164.6
750	750	-162.5	98.3	1.2	-172.0	-3.3	-151.2
800	800	-162.0	97.1	2.0	-158.1	3.2	-129.6
850	850	-161.5	95.4	3.1	-149.9	9.6	-115.3
900	900	-161.0	93.5	4.4	-145.1	16.1	-106.6
950	950	-160.5	91.6	6.2	-142.3	22.6	-101.8
1000	1000	-160.1	90.0	8.7	-141.0	29.9	-98.4
1050	1050	-160.2	89.3	12.7	-140.7	39.7	-93.8
1100	1100	-159.9	88.4	18.0	-141.2	51.0	-85.2
1150	1150	-159.3	87.1	24.2	-142.4	63.7	-79.1
1200	1200	-158.5	85.6	30.9	-144.2	77.0	-74.1
1250	1250	-157.9	83.6	37.2	-146.5	90.1	-70.5
1300	1300	-157.8	81.3	42.2	-149.4	102.2	-68.5
1400	1400	-161.3	76.8	47.7	-154.6	123.0	-64.6
1500	1500	-175.2	65.9	42.4	-166.0	148.1	-57.1
1600	1600	174.0	50.6	29.1	179.7	155.5	-56.5
2000	2000	161.3	30.1	14.3	162.9	152.6	-59.7

REC = 34 HEADING = 90. DEG SHIP SPEED = 20. KNOTS RAO (MOTION/VAEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.617E-01	9.605E-01	9.973E-01	5.346E-03	7.317E-04	1.108E-04
.250	.250	1.651E-01	9.536E-01	9.965E-01	1.548E-02	9.443E-04	6.465E-05
.300	.300	8.893E-02	9.860E-01	1.001E+00	3.440E-02	1.160E-03	2.123E-04
.350	.350	5.399E-02	1.093E+00	1.021E+00	6.879E-02	1.388E-03	1.093E-03
.400	.400	3.532E-02	1.112E+00	1.041E+00	1.383E-01	1.569E-03	8.648E-04
.450	.450	2.443E-02	1.081E+00	1.057E+00	2.748E-01	1.765E-03	2.812E-04
.500	.500	1.763E-02	1.030E+00	1.068E+00	5.434E-01	1.988E-03	3.099E-05
.550	.550	1.315E-02	9.734E-01	1.071E+00	1.079E+00	2.292E-03	7.259E-04
.600	.600	1.008E-02	9.191E-01	1.064E+00	2.119E+00	2.748E-03	3.204E-03
.625	.625	8.900E-03	8.899E-01	1.056E+00	2.884E+00	3.088E-03	5.373E-03
.650	.650	7.933E-03	8.601E-01	1.058E+00	3.712E+00	3.327E-03	7.346E-03
.675	.675	7.133E-03	8.264E-01	1.072E+00	4.353E+00	3.525E-03	8.184E-03
.700	.700	6.435E-03	7.775E-01	1.080E+00	4.598E+00	3.787E-03	8.217E-03
.725	.725	5.822E-03	7.217E-01	1.106E+00	4.919E+00	4.032E-03	7.633E-03
.750	.750	5.283E-03	6.685E-01	1.124E+00	5.370E+00	4.357E-03	6.833E-03
.800	.800	4.382E-03	5.831E-01	1.165E+00	2.009E+00	5.192E-03	5.491E-03
.850	.850	3.667E-03	5.206E-01	1.209E+00	2.077E+00	6.366E-03	4.771E-03
.900	.900	3.093E-03	4.696E-01	1.255E+00	1.509E+00	7.942E-03	4.426E-03
.950	.950	2.627E-03	4.237E-01	1.298E+00	1.123E+00	1.011E-02	4.253E-03
1.000	1.000	2.255E-03	3.795E-01	1.337E+00	8.685E-01	1.287E-02	3.905E-03
1.050	1.050	1.968E-03	3.362E-01	1.375E+00	7.256E-01	1.605E-02	3.067E-03
1.100	1.100	1.711E-03	2.985E-01	1.394E+00	6.179E-01	1.932E-02	2.594E-03
1.150	1.150	1.472E-03	2.653E-01	1.336E+00	5.314E-01	2.413E-02	2.375E-03
1.200	1.200	1.243E-03	2.358E-01	1.214E+00	4.508E-01	2.794E-02	2.335E-03
1.250	1.250	1.027E-03	2.096E-01	1.028E+00	4.019E-01	3.044E-02	2.435E-03
1.300	1.300	8.311E-04	1.863E-01	8.153E-01	3.517E-01	3.120E-02	2.645E-03
1.400	1.400	5.394E-04	1.417E-01	4.221E-01	2.678E-01	2.516E-02	2.671E-03
1.600	1.600	2.468E-04	7.570E-02	1.090E-01	1.657E-01	1.374E-02	2.578E-03
1.800	1.800	1.354E-04	3.745E-02	4.822E-02	9.931E-02	7.440E-03	2.550E-03
2.000	2.000	7.766E-05	1.717E-02	2.075E-02	5.740E-02	3.601E-03	2.355E-03

PHASE (MOTION-AVEVENT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-178.8	88.9	.0	85.4	-52.7	13.5
.250	.250	-176.8	89.1	-0	87.7	-47.9	26.6
.300	.300	-174.8	89.7	-1	91.0	-41.1	4.9
.350	.350	-172.6	90.6	-2	96.3	-28.1	-19.0
.400	.400	-170.7	90.7	-2	99.9	-19.9	-24.6
.450	.450	-169.0	90.5	-1	103.2	-15.0	-21.3
.500	.500	-167.5	90.3	-0	107.5	-12.7	78.1
.550	.550	-166.1	90.4	1	114.4	-12.5	130.8
.600	.600	-164.8	91.1	1	125.9	-13.6	142.8
.625	.625	-164.3	91.9	1	134.2	-14.4	149.9
.650	.650	-163.8	93.5	2	144.3	-13.5	158.1
.675	.675	-163.5	95.4	4	155.6	-10.6	168.9
.700	.700	-163.1	96.9	7	167.1	-7.7	-178.2
.725	.725	-162.8	97.9	1.0	177.6	-4.8	-164.8
.750	.750	-162.6	98.1	1.3	173.4	-1.9	-152.2
.800	.800	-162.0	97.3	2.2	160.4	4.0	-131.5
.850	.850	-161.5	95.8	3.4	152.4	9.8	-117.6
.900	.900	-161.0	94.1	4.8	147.7	15.7	-109.1
.950	.950	-160.5	92.3	6.7	144.9	21.5	-104.5
1.000	1.000	-160.2	90.7	9.1	143.5	28.0	-101.5
1.050	1.050	-160.2	89.1	13.2	143.3	36.8	-95.5
1.100	1.100	-159.7	87.8	18.3	143.7	46.9	-89.3
1.150	1.150	-159.1	86.2	24.5	144.8	58.2	-83.4
1.200	1.200	-158.5	84.3	31.3	146.4	70.3	-78.4
1.250	1.250	-158.3	81.9	38.0	148.5	82.5	-74.8
1.300	1.300	-161.1	77.3	43.6	151.1	94.0	-72.7
1.400	1.400	-173.9	66.1	50.5	155.8	114.2	-69.0
1.600	1.600	175.2	50.5	44.3	166.6	139.7	-61.9
1.800	1.800	162.1	29.6	28.4	179.5	149.1	-61.3
2.000	2.000			12.7	162.8	148.5	-64.0

REC = 35

HEADING = 90. DEG
SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.620E-01	9.526E-01	1.004E+00	5.863E-03	1.287E-03	1.209E-04
.250	.250	1.552E-01	9.480E-01	1.004E+00	1.551E-02	1.613E-03	7.627E-05
.300	.300	8.907E-02	9.760E-01	1.010E+00	3.18E-02	1.946E-03	2.566E-04
.350	.350	5.411E-02	1.071E+00	1.034E+00	5.699E-02	2.290E-03	1.253E-03
.400	.400	3.543E-02	1.092E+00	1.055E+00	1.347E-01	2.591E-03	1.070E-03
.450	.450	2.422E-02	1.069E+00	1.073E+00	2.092E-01	2.859E-03	3.968E-04
.500	.500	1.770E-02	1.024E+00	1.084E+00	5.350E-01	3.142E-03	3.583E-05
.550	.550	1.322E-02	9.743E-01	1.088E+00	1.051E+00	3.516E-03	6.158E-04
.600	.600	1.044E-02	9.251E-01	1.082E+00	2.053E+00	4.077E-03	2.912E-03
.625	.625	8.954E-03	8.966E-01	1.076E+00	2.752E+00	4.459E-03	4.901E-03
.650	.650	7.905E-03	8.682E-01	1.078E+00	3.464E+00	4.787E-03	6.602E-03
.675	.675	7.182E-03	8.344E-01	1.093E+00	3.969E+00	5.043E-03	7.167E-03
.700	.700	6.481E-03	7.869E-01	1.109E+00	4.129E+00	5.275E-03	7.056E-03
.725	.725	5.865E-03	7.332E-01	1.127E+00	3.952E+00	5.577E-03	6.495E-03
.750	.750	5.323E-03	6.813E-01	1.146E+00	3.566E+00	5.929E-03	5.804E-03
.800	.800	4.475E-03	5.954E-01	1.186E+00	2.669E+00	6.810E-03	4.730E-03
.850	.850	3.696E-03	5.302E-01	1.230E+00	1.948E+00	7.998E-03	4.205E-03
.900	.900	3.117E-03	4.764E-01	1.275E+00	1.443E+00	9.500E-03	4.000E-03
.950	.950	2.642E-03	4.283E-01	1.317E+00	1.092E+00	1.171E-02	3.932E-03
1.000	1.000	2.273E-03	3.824E-01	1.354E+00	8.565E-01	1.433E-02	3.663E-03
1.050	1.050	1.979E-03	3.379E-01	1.390E+00	7.245E-01	1.708E-02	2.850E-03
1.100	1.100	1.721E-03	2.993E-01	1.398E+00	6.220E-01	2.033E-02	2.381E-03
1.150	1.150	1.484E-03	2.651E-01	1.357E+00	5.392E-01	2.384E-02	2.157E-03
1.200	1.200	1.262E-03	2.343E-01	1.247E+00	4.708E-01	2.710E-02	2.104E-03
1.250	1.250	1.063E-03	2.080E-01	1.071E+00	4.130E-01	2.943E-02	2.190E-03
1.300	1.300	8.643E-04	1.841E-01	8.587E-01	3.632E-01	3.069E-02	2.380E-03
1.400	1.400	5.675E-04	1.391E-01	4.400E-01	2.781E-01	2.611E-02	2.407E-03
1.500	1.500	2.506E-04	7.359E-02	9.812E-02	1.715E-01	1.41E-02	2.335E-03
1.600	1.600	1.365E-04	3.620E-02	4.247E-02	1.015E-01	7.944E-03	2.336E-03
1.800	1.800	7.733E-05	1.663E-02	1.908E-02	5.794E-02	3.848E-03	2.234E-03
2.000	2.000						

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-178.8	88.6	-1.1	83.4	-45.2	17.2
.250	.250	-176.9	88.8	-1.1	86.3	-41.1	27.4
.300	.300	-174.8	89.4	-2.2	89.9	-34.9	8.2
.350	.350	-172.6	90.3	-2.2	95.9	-22.8	-13.4
.400	.400	-170.7	90.5	-2.2	99.9	-15.2	-18.7
.450	.450	-169.0	90.3	-1.1	103.6	-10.7	-16.0
.500	.500	-167.5	90.2	.1	108.2	-8.6	54.7
.550	.550	-166.1	90.2	.2	115.4	-8.7	131.8
.600	.600	-164.9	90.9	.2	127.2	-10.1	145.6
.625	.625	-164.3	91.8	.1	135.5	-11.2	152.7
.650	.650	-163.8	93.3	.2	145.5	-10.5	160.5
.675	.675	-163.5	99.1	.5	156.3	-7.9	170.6
.700	.700	-163.2	95.6	.8	167.1	-5.2	177.5
.725	.725	-162.9	97.6	1.2	177.0	-2.6	165.0
.750	.750	-162.6	97.9	1.6	174.7	.1	-153.2
.800	.800	-162.0	97.4	2.5	162.4	5.4	-133.4
.850	.850	-161.5	96.1	3.8	154.9	10.7	-119.8
.900	.900	-161.0	94.5	5.3	150.2	15.9	-111.6
.950	.950	-160.5	92.9	7.2	147.5	21.1	-107.2
1.000	1.000	-160.2	91.4	9.7	146.0	26.7	-104.5
1.050	1.050	-160.5	90.7	13.7	145.8	34.5	-99.3
1.100	1.100	-160.4	89.7	18.7	146.2	43.5	-93.6
1.150	1.150	-160.1	88.5	24.7	147.1	53.6	-88.0
1.200	1.200	-159.6	86.9	31.5	148.5	64.4	-83.1
1.250	1.250	-159.1	84.9	38.4	150.4	75.6	-79.4
1.300	1.300	-158.8	82.5	44.6	152.7	86.4	-77.3
1.400	1.400	-161.1	77.9	53.3	157.1	105.8	-73.8
1.600	1.600	-172.8	66.5	47.5	167.2	131.6	-67.1
1.800	1.800	176.3	50.4	28.1	179.3	143.1	-66.5
2.000	2.000	162.8	29.2	11.1	162.7	144.5	-68.5

REC = 36

HEADING = 105. DEG
RAO (MOTION/HAVENT)*2

SHIP SPEED = 5. KNOTS

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	3.607E-01	8.927E-01	1.003E+00	5.607E-03	5.882E-04	1.318E-04
.254	.250	1.724E-01	8.700E-01	1.001E+00	1.493E-02	1.244E-03	4.769E-04
.306	.300	1.000E-01	9.257E-01	1.004E+00	3.470E-02	2.309E-03	9.623E-04
.358	.350	6.671E-02	1.030E+00	1.014E+00	7.590E-02	5.882E-03	2.431E-03
.411	.400	4.919E-02	1.007E+00	1.031E+00	1.607E-01	6.330E-03	4.830E-03
.464	.450	3.908E-02	9.447E-01	1.040E+00	3.384E-01	9.998E-03	8.534E-03
.517	.500	3.275E-02	8.659E-01	1.040E+00	7.341E-01	1.521E-02	1.458E-02
.571	.550	2.549E-02	7.802E-01	1.028E+00	1.711E+00	2.231E-02	2.548E-02
.624	.600	2.542E-02	7.093E-01	1.001E+00	4.466E+00	3.139E-02	4.837E-02
.652	.625	2.421E-02	6.615E-01	9.947E-01	7.285E+00	3.676E-02	6.668E-02
.679	.650	2.314E-02	5.934E-01	1.001E+00	1.082E+01	4.295E-02	8.507E-02
.705	.675	2.215E-02	4.871E-01	1.009E+00	1.307E+01	4.997E-02	9.329E-02
.733	.700	2.122E-02	3.934E-01	1.018E+00	1.218E+01	5.789E-02	8.166E-02
.761	.725	2.034E-02	3.442E-01	1.029E+00	9.651E+00	6.678E-02	6.378E-02
.789	.750	1.950E-02	3.227E-01	1.042E+00	7.310E+00	7.667E-02	4.959E-02
.843	.800	1.789E-02	2.973E-01	1.075E+00	4.451E+00	9.954E-02	3.542E-02
.893	.850	1.633E-02	2.683E-01	1.120E+00	3.090E+00	1.261E-01	3.128E-02
.955	.900	1.477E-02	2.284E-01	1.179E+00	2.381E+00	1.548E-01	3.108E-02
1.011	.950	1.309E-02	1.894E-01	1.261E+00	1.917E+00	1.833E-01	3.164E-02
1.069	1.000	1.122E-02	1.595E-01	1.374E+00	1.540E+00	2.068E-01	3.239E-02
1.125	1.050	9.313E-03	1.237E-01	1.446E+00	1.264E+00	2.121E-01	3.317E-02
1.182	1.100	7.551E-03	9.942E-02	1.391E+00	1.053E+00	1.915E-01	3.458E-02
1.240	1.150	6.106E-03	7.659E-02	1.179E+00	8.873E-01	1.529E-01	3.618E-02
1.293	1.200	4.934E-03	5.719E-02	8.861E-01	7.563E-01	1.142E-01	3.735E-02
1.355	1.250	4.065E-03	4.092E-02	5.947E-01	6.373E-01	8.380E-02	3.839E-02
1.415	1.300	3.206E-03	2.795E-02	3.455E-01	5.006E-01	6.134E-02	3.976E-02
1.453	1.400	1.907E-03	1.225E-02	9.004E-02	2.804E-01	3.562E-02	2.837E-02
1.774	1.600	6.239E-04	3.315E-03	3.365E-03	4.694E-02	8.954E-03	1.261E-02
2.020	1.800	1.461E-04	2.900E-03	1.351E-03	5.602E-03	1.294E-03	2.845E-03
2.272	2.000	2.235E-05	1.015E-03	1.275E-03	1.113E-03	5.558E-05	1.132E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	160.5	89.7	.1	93.1	-92.9	-171.6
.254	.250	153.0	89.7	.1	95.5	-89.5	-179.1
.306	.300	145.2	90.4	.0	99.5	-86.9	-165.3
.358	.350	137.5	91.0	-.2	105.0	-85.0	-155.0
.411	.400	129.9	90.9	-.3	110.1	-83.9	-164.8
.464	.450	122.7	90.7	-.3	115.5	-82.9	-175.7
.517	.500	115.9	90.9	-.2	122.1	-81.6	-175.4
.571	.550	109.7	91.7	-.1	131.3	-79.9	-169.4
.624	.600	103.9	94.3	-.1	146.9	-77.8	-168.8
.679	.650	99.2	97.2	-.1	159.8	-76.7	-173.6
.706	.675	97.0	100.8	-.0	177.8	-75.6	-176.2
.733	.700	94.8	102.7	-.0	-160.3	-74.4	-163.0
.761	.725	92.8	97.2	.1	-139.1	-73.0	-151.2
.788	.750	90.8	93.7	.1	-122.1	-71.5	-144.4
.843	.800	87.0	88.9	.4	-93.4	-69.8	-142.4
.899	.850	83.3	85.7	.9	-83.3	-65.9	-146.7
.955	.900	79.9	82.7	2.0	-76.6	-61.1	-155.0
1.011	.950	76.9	80.6	4.5	-71.8	-58.4	-163.7
1.068	1.000	74.4	79.3	9.5	-67.9	-48.4	-170.7
1.125	1.050	71.4	77.4	17.1	-64.9	-39.3	-175.5
1.182	1.100	67.5	74.5	27.1	-62.3	-29.7	-179.6
1.240	1.150	62.5	70.4	37.9	-60.3	-17.8	-176.6
1.298	1.200	56.9	64.8	48.1	-58.8	-8.7	-172.8
1.356	1.250	51.3	58.0	57.1	-58.0	.7	-168.7
1.415	1.300	45.7	52.1	65.4	-57.7	2.5	-164.5
1.473	1.400	33.1	34.8	73.5	-58.7	6.2	-161.3
1.533	1.450	31.6	30.8	80.8	-72.6	14.0	-154.7
1.592	1.500	31.3	-30.8	89.9	-155.5	18.8	-136.0
1.650	1.550	-1.6	-132.9	-71.6	152.9	97.2	-97.2
1.708	1.600	-31.3				149.3	27.0
1.766	1.650	-105.7					

REC = 37 HEADING = 105. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVEMT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	3.428E-01	8.560E-01	9.985E-01	5.646E-03	8.746E-04	3.400E-05
.258	.250	1.618E-01	8.338E-01	9.980E-01	1.521E-02	1.683E-03	2.659E-04
.312	.300	9.277E-02	9.003E-01	1.004E+00	3.548E-02	2.852E-03	5.573E-04
.367	.350	6.108E-02	9.725E-01	1.021E+00	7.901E-02	4.444E-03	1.677E-03
.422	.400	4.448E-02	9.486E-01	1.031E+00	1.720E-01	6.870E-03	3.726E-03
.473	.450	3.489E-02	8.826E-01	1.048E+00	3.733E-01	1.049E-02	7.304E-03
.534	.500	2.890E-02	8.036E-01	1.052E+00	8.392E-01	1.571E-02	1.364E-02
.591	.550	2.486E-02	7.226E-01	1.043E+00	2.004E+00	2.288E-02	2.570E-02
.643	.600	2.197E-02	6.286E-01	1.033E+00	4.764E+00	3.202E-02	4.726E-02
.678	.625	2.083E-02	5.682E-01	1.044E+00	6.366E+00	3.725E-02	5.641E-02
.707	.650	1.978E-02	4.880E-01	1.060E+00	7.071E+00	4.319E-02	5.871E-02
.737	.675	1.882E-02	4.172E-01	1.078E+00	6.527E+00	4.992E-02	5.313E-02
.767	.700	1.792E-02	3.708E-01	1.100E+00	5.398E+00	5.748E-02	4.498E-02
.796	.725	1.706E-02	3.420E-01	1.126E+00	4.313E+00	6.592E-02	3.794E-02
.826	.750	1.625E-02	3.210E-01	1.155E+00	3.470E+00	7.525E-02	3.322E-02
.887	.800	1.470E-02	2.838E-01	1.229E+00	2.412E+00	9.647E-02	2.875E-02
.948	.850	1.321E-02	2.47E-01	1.323E+00	1.852E+00	1.201E-01	2.797E-02
1.010	.900	1.166E-02	2.149E-01	1.445E+00	1.498E+00	1.442E-01	2.800E-02
1.073	.950	9.969E-03	1.702E-01	1.609E+00	1.206E+00	1.639E-01	2.779E-02
1.136	1.000	8.249E-03	1.338E-01	1.719E+00	9.975E-01	1.676E-01	2.849E-02
1.203	1.050	6.675E-03	1.130E-01	1.650E+00	8.421E-01	1.478E-01	2.982E-02
1.264	1.100	5.419E-03	8.938E-02	1.375E+00	7.248E-01	1.137E-01	3.163E-02
1.331	1.150	4.459E-03	6.900E-02	9.990E-01	6.364E-01	8.235E-02	3.390E-02
1.396	1.200	3.577E-03	5.039E-02	6.204E-01	5.278E-01	5.801E-02	3.311E-02
1.462	1.250	2.824E-03	3.584E-02	3.485E-01	4.239E-01	4.343E-02	3.128E-02
1.530	1.300	2.196E-03	2.491E-02	1.816E-01	3.315E-01	3.382E-02	2.895E-02
1.665	1.400	1.284E-03	1.136E-02	3.938E-02	1.834E-01	1.987E-02	2.317E-02
1.943	1.600	4.863E-04	1.988E-03	3.254E-03	2.499E-02	5.166E-03	8.524E-03
2.240	1.800	1.279E-04	1.543E-03	4.827E-04	4.386E-03	8.651E-04	1.595E-03
2.543	2.000	1.414E-05	5.499E-04	6.175E-04	6.820E-03	9.989E-05	6.457E-04

PHASE (MOTION-HAVEIT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	160.5	89.4	.1	92.8	-81.8	-152.8
.250	.250	153.1	89.5	.1	95.8	-79.9	-174.5
.300	.300	145.3	90.4	.0	101.5	-77.6	-149.6
.350	.350	137.7	90.9	-.2	108.2	-75.7	-145.6
.400	.400	130.1	90.8	-.2	114.0	-75.2	-160.7
.450	.450	122.9	90.6	-.2	120.3	-74.9	-173.8
.500	.500	116.1	91.1	-.1	128.5	-74.2	177.0
.550	.550	109.9	92.3	-.1	141.6	-73.0	172.8
.600	.600	104.3	96.1	-.1	164.9	-71.1	178.5
.625	.625	102.0	99.0	.0	-177.7	-70.1	-172.1
.650	.650	99.7	101.4	.1	-158.5	-68.9	-161.3
.675	.675	97.6	99.6	.3	-140.6	-67.5	-152.4
.700	.700	95.5	97.4	.4	-125.9	-65.9	-147.1
.725	.725	93.5	95.0	.7	-114.6	-64.2	-145.3
.750	.750	91.5	92.9	1.0	-105.8	-62.2	-146.0
.800	.800	87.8	89.4	1.9	-93.1	-57.6	-151.3
.850	.850	84.2	86.3	3.5	-84.6	-51.9	-158.6
.900	.900	81.2	84.1	6.7	-78.6	-44.7	-165.3
.950	.950	78.8	83.0	12.7	-74.0	-35.2	-169.9
1.000	1.000	75.9	81.4	21.8	-70.2	-24.0	-173.9
1.050	1.050	72.0	78.8	33.4	-67.0	-12.6	-177.6
1.100	1.100	67.0	75.2	49.8	-64.3	-3.5	178.6
1.150	1.150	61.6	70.1	56.9	-62.1	1.8	174.5
1.200	1.200	56.5	65.2	67.7	-50.6	4.1	171.3
1.250	1.250	51.2	51.8	76.5	-59.6	5.0	168.4
1.300	1.300	45.4	56.3	83.2	-59.1	6.4	165.6
1.350	1.350	32.1	40.7	89.3	-59.2	10.9	159.6
1.400	1.400	1.1	-22.4	59.0	-72.5	10.8	141.8
1.450	1.450	-32.5	-64.3	-36.8	-175.5	13.9	99.1
1.500	1.500	-105.0	-130.1	-76.0	146.0	139.0	26.5

REC = 38

HEADING = 105. DEG

SHIP SPEED = 15. KNOTS

RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.209	.200	3.261E-01	8.142E-01	9.978E-01	5.650E-03	1.266E-03	9.111E-06
.263	.250	1.521E-01	7.925E-01	9.976E-01	1.548E-02	2.234E-03	1.140E-04
.318	.300	8.619E-02	8.646E-01	1.008E+00	3.592E-02	3.484E-03	3.097E-04
.375	.350	5.605E-02	9.177E-01	1.029E+00	8.161E-02	5.081E-03	1.137E-03
.433	.400	4.032E-02	8.875E-01	1.049E+00	1.824E-01	7.461E-03	2.833E-03
.491	.450	3.126E-02	8.205E-01	1.064E+00	4.057E-01	1.102E-02	6.284E-03
.551	.500	2.550E-02	7.417E-01	1.071E+00	9.160E-01	1.624E-02	1.283E-02
.612	.550	2.179E-02	6.516E-01	1.067E+00	2.045E+00	2.350E-02	2.463E-02
.673	.600	1.911E-02	5.872E-01	1.063E+00	3.520E+00	3.220E-02	3.599E-02
.705	.625	1.800E-02	4.822E-01	1.107E+00	3.750E+00	3.714E-02	3.700E-02
.736	.650	1.700E-02	4.320E-01	1.134E+00	3.502E+00	4.273E-02	3.503E-02
.768	.675	1.607E-02	3.892E-01	1.166E+00	3.036E+00	4.903E-02	3.188E-02
.800	.700	1.521E-02	3.570E-01	1.203E+00	2.553E+00	5.608E-02	2.900E-02
.832	.725	1.440E-02	3.312E-01	1.245E+00	2.147E+00	6.391E-02	2.693E-02
.865	.750	1.362E-02	3.083E-01	1.293E+00	1.832E+00	7.248E-02	2.566E-02
.897	.800	1.215E-02	2.852E-01	1.400E+00	1.415E+00	9.158E-02	2.493E-02
.930	.850	1.073E-02	2.630E-01	1.550E+00	1.195E+00	1.119E-01	2.323E-02
.965	.900	9.419E-03	1.856E-01	1.754E+00	9.414E-01	1.299E-01	2.438E-02
1.000	.950	7.634E-03	1.537E-01	1.948E+00	7.828E-01	1.362E-01	2.462E-02
1.020	1.000	6.179E-03	1.262E-01	1.885E+00	6.670E-01	1.226E-01	2.567E-02
1.050	1.050	4.998E-03	1.019E-01	1.582E+00	5.823E-01	9.456E-02	2.744E-02
1.080	1.100	4.094E-03	8.025E-02	1.143E+00	5.185E-01	6.726E-02	2.956E-02
1.120	1.150	3.267E-03	5.990E-02	6.908E-01	4.333E-01	4.678E-02	2.868E-02
1.160	1.200	2.575E-03	4.391E-02	3.806E-01	3.553E-01	3.527E-02	2.741E-02
1.200	1.250	2.000E-03	3.160E-02	1.954E-01	2.846E-01	2.762E-02	2.574E-02
1.240	1.300	1.537E-03	2.231E-02	9.423E-02	2.217E-01	2.142E-02	2.373E-02
1.280	1.350	9.385E-04	9.502E-03	2.391E-02	1.188E-01	1.092E-02	1.766E-02
1.320	1.400	3.794E-04	1.221E-03	2.393E-03	1.319E-02	3.141E-03	5.729E-03
1.360	1.450	1.046E-04	9.073E-04	2.176E-04	3.669E-03	5.952E-04	9.202E-04
1.400	1.500	7.829E-06	3.939E-04	3.561E-04	4.289E-03	1.414E-03	3.949E-04

PHASE (MOTION-WAVEVENT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.208	.200	160.6	89.2	.1	92.7	-73.0	-81.2
.261	.250	153.2	89.3	.1	96.6	-71.8	-164.4
.318	.300	145.5	90.4	-.0	104.4	-69.1	-123.7
.375	.350	137.9	90.9	-.2	112.4	-67.1	-133.0
.433	.400	130.3	90.8	-.2	119.2	-67.1	-155.6
.491	.450	123.1	90.9	-.1	127.0	-67.4	-171.2
.551	.500	116.3	91.4	-.0	138.1	-67.4	-179.8
.612	.550	110.1	93.2	.0	156.1	-66.6	179.3
.673	.600	104.8	97.3	.2	175.2	-64.9	-159.2
.705	.625	102.5	98.5	.4	158.9	-63.8	-160.8
.736	.650	100.3	98.4	.6	143.7	-62.5	-153.8
.768	.675	98.2	97.3	1.0	130.9	-61.0	-149.4
.800	.700	96.1	95.8	1.4	120.5	-59.3	-147.6
.832	.725	94.1	94.2	1.9	112.0	-57.3	-147.7
.865	.750	92.2	92.7	2.5	105.1	-55.1	-149.2
.897	.800	88.5	89.7	4.5	94.5	-49.8	-154.5
.930	.850	85.2	87.0	7.6	87.0	-43.2	-150.7
.965	.900	82.9	86.3	13.9	81.6	-34.0	-165.0
1.000	.950	80.2	84.9	23.5	77.1	-22.8	-168.7
1.035	1.000	76.6	82.8	36.0	73.3	-11.1	-172.2
1.070	1.050	71.8	79.7	43.5	69.9	-1.3	-175.8
1.105	1.100	66.7	75.4	62.1	67.0	4.3	-179.6
1.140	1.150	61.9	72.7	74.3	65.1	6.5	177.4
1.175	1.200	56.9	69.3	84.0	63.5	7.3	174.7
1.210	1.250	51.5	65.1	91.3	62.4	8.7	172.2
1.245	1.300	45.3	59.9	96.3	61.6	10.9	169.6
1.280	1.400	29.8	46.6	99.4	60.0	12.3	163.6
1.315	1.600	-1.8	-15.5	99.7	58.9	13.2	145.9
1.350	1.800	-33.4	-82.3	-39.7	172.2	13.2	98.7
1.385	2.000	-106.7	-128.4	-79.9	136.4	130.0	22.8

REC = 39

HEADING = 105. DEG
RPO (MOTION/WAVEHT)**2

SHIP SPEED = 20. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	3.105E-01	7.704E-01	9.993E-01	5.631E-03	1.779E-03	3.276E-05
.267	.250	1.431E-01	7.485E-01	1.001E+00	1.597E-02	2.885E-03	3.542E-05
.324	.300	8.019E-02	8.205E-01	1.018E+00	3.612E-02	4.175E-03	2.630E-04
.383	.350	5.153E-02	8.585E-01	1.044E+00	8.439E-02	5.735E-03	8.081E-04
.443	.400	3.664E-02	8.256E-01	1.068E+00	1.991E-01	8.015E-03	2.098E-03
.505	.450	2.809E-02	7.610E-01	1.087E+00	4.432E-01	1.147E-02	5.311E-03
.568	.500	2.275E-02	6.848E-01	1.098E+00	1.038E+00	1.665E-02	1.192E-02
.632	.550	1.915E-02	5.898E-01	1.098E+00	2.215E+00	2.405E-02	2.327E-02
.693	.600	1.663E-02	4.854E-01	1.147E+00	2.973E+00	3.174E-02	2.809E-02
.751	.625	1.565E-02	4.314E-01	1.181E+00	2.804E+00	3.635E-02	2.704E-02
.765	.650	1.463E-02	3.873E-01	1.220E+00	2.439E+00	4.145E-02	2.499E-02
.799	.675	1.389E-02	3.547E-01	1.265E+00	2.055E+00	4.724E-02	2.305E-02
.833	.700	1.295E-02	3.279E-01	1.317E+00	1.730E+00	5.375E-02	2.168E-02
.863	.725	1.221E-02	3.045E-01	1.376E+00	1.473E+00	6.085E-02	2.090E-02
.903	.750	1.149E-02	2.826E-01	1.442E+00	1.288E+00	6.860E-02	2.062E-02
.974	.800	1.011E-02	2.404E-01	1.593E+00	1.041E+00	8.559E-02	2.107E-02
1.046	.850	8.725E-03	2.005E-01	1.809E+00	8.380E-01	1.021E-01	2.032E-02
1.120	.900	7.302E-03	1.672E-01	2.029E+00	6.888E-01	1.118E-01	2.022E-02
1.195	.950	5.935E-03	1.388E-01	2.096E+00	5.836E-01	1.065E-01	2.103E-02
1.272	1.000	4.776E-03	1.142E-01	1.831E+00	5.038E-01	8.593E-02	2.265E-02
1.350	1.050	3.875E-03	9.170E-02	1.351E+00	4.551E-01	6.167E-02	2.472E-02
1.429	1.100	3.084E-03	6.993E-02	8.230E-01	3.856E-01	4.274E-02	2.426E-02
1.509	1.150	2.425E-03	5.254E-02	4.508E-01	3.208E-01	3.205E-02	2.352E-02
1.591	1.200	1.881E-03	3.890E-02	2.295E-01	2.617E-01	2.498E-02	2.246E-02
1.675	1.250	1.445E-03	2.836E-02	1.102E-01	2.032E-01	1.913E-02	2.110E-02
1.759	1.300	1.115E-03	1.913E-02	5.345E-02	1.606E-01	1.315E-02	1.879E-02
1.932	1.400	7.097E-04	7.456E-03	1.670E-02	8.235E-02	6.255E-03	1.329E-02
2.295	1.600	3.003E-04	7.872E-04	1.549E-03	7.435E-03	2.055E-03	3.822E-03
2.661	1.800	7.785E-05	6.543E-04	5.357E-05	3.036E-03	4.142E-04	5.670E-04
3.027	2.000	3.769E-06	2.752E-04	3.668E-04	3.215E-03	1.566E-04	2.775E-04

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	160.6	88.9	.0	92.0	-65.1	-29.6
.267	.250	153.3	89.1	-.0	96.9	-64.4	-142.7
.324	.300	145.7	90.3	-.1	106.6	-60.9	-87.6
.383	.350	139.1	90.8	-.2	115.6	-58.9	-116.6
.443	.400	130.5	90.8	-.1	123.1	-59.4	-149.8
.505	.450	123.3	91.0	.0	131.8	-60.5	-168.8
.563	.500	116.5	91.8	.1	145.1	-61.1	-177.1
.622	.550	110.3	94.2	.2	167.1	-60.9	-175.2
.698	.600	105.4	98.3	.7	-151.2	-59.2	-159.7
.731	.625	103.1	98.6	1.1	-145.9	-58.0	-152.4
.765	.650	100.9	97.8	1.6	-132.9	-56.7	-147.6
.799	.675	98.7	96.6	2.1	-122.2	-55.1	-145.4
.833	.700	96.7	95.2	2.9	-113.6	-53.3	-145.3
.868	.725	94.7	93.7	3.7	-106.5	-51.1	-146.6
.903	.750	92.8	92.3	4.8	-100.5	-48.7	-148.8
.974	.800	89.2	89.4	7.9	-91.3	-42.9	-154.9
1.045	.850	86.7	88.5	13.6	-85.1	-34.8	-159.7
1.120	.900	84.2	87.5	22.7	-80.1	-24.4	-163.6
1.195	.950	81.0	85.8	35.3	-75.8	-12.6	-167.1
1.272	1.000	76.8	83.2	49.8	-71.9	-1.9	-170.6
1.350	1.050	71.8	79.6	63.9	-68.5	5.1	-174.4
1.429	1.100	67.4	77.5	77.5	-66.1	8.0	-177.3
1.509	1.150	62.7	74.8	88.6	-64.2	9.3	-180.0
1.591	1.200	57.6	71.5	96.9	-62.7	11.1	-177.6
1.675	1.250	51.7	67.4	102.8	-61.4	13.5	-175.3
1.759	1.300	44.0	63.1	100.1	-61.0	15.1	-172.6
1.832	1.400	27.7	51.9	87.2	-61.6	11.8	-166.8
2.096	1.600	-6.6	-10.6	53.0	-81.6	-4.4	-148.1
2.680	1.800	-33.5	-86.7	-27.1	167.3	17.9	96.2
3.087	2.000	-106.3	-127.2	-82.1	132.5	124.7	15.8

REC = 40

HEADING = 105. DEG
SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.214	.200	2.958E-01	7.272E-01	1.007E+00	5.601E-03	2.383E-03	7.441E-05
.271	.250	1.348E-01	7.039E-01	1.011E+00	1.565E-02	3.609E-03	1.544E-05
.331	.300	7.472E-02	7.713E-01	1.034E+00	3.598E-02	4.872E-03	3.865E-04
.392	.350	4.746E-02	7.975E-01	1.064E+00	8.646E-02	6.329E-03	6.731E-04
.454	.400	3.336E-02	7.641E-01	1.093E+00	2.070E-01	8.438E-03	1.581E-03
.519	.450	2.530E-02	7.028E-01	1.116E+00	4.885E-01	1.174E-02	4.552E-03
.585	.500	2.030E-02	6.275E-01	1.130E+00	1.116E+00	1.687E-02	1.100E-02
.653	.550	1.699E-02	5.307E-01	1.145E+00	2.037E+00	2.380E-02	1.926E-02
.722	.600	1.462E-02	4.307E-01	1.217E+00	2.126E+00	3.065E-02	2.004E-02
.758	.625	1.362E-02	3.880E-01	1.261E+00	1.878E+00	3.479E-02	1.900E-02
.794	.650	1.272E-02	3.541E-01	1.311E+00	1.601E+00	3.947E-02	1.796E-02
.830	.675	1.190E-02	3.264E-01	1.359E+00	1.353E+00	4.474E-02	1.725E-02
.866	.700	1.113E-02	3.024E-01	1.434E+00	1.163E+00	5.062E-02	1.693E-02
.904	.725	1.042E-02	2.802E-01	1.506E+00	1.024E+00	5.712E-02	1.695E-02
.941	.750	9.740E-03	2.590E-01	1.588E+00	9.166E-01	6.420E-02	1.725E-02
1.017	.800	8.448E-03	2.374E-01	1.788E+00	7.494E-01	7.904E-02	1.734E-02
1.095	.850	7.147E-03	1.813E-01	2.049E+00	6.055E-01	9.076E-02	1.679E-02
1.175	.900	5.867E-03	1.523E-01	2.211E+00	5.093E-01	9.320E-02	1.722E-02
1.257	.950	4.714E-03	1.259E-01	2.085E+00	4.918E-01	8.159E-02	1.851E-02
1.340	1.000	3.796E-03	1.034E-01	1.600E+00	3.945E-01	6.173E-02	2.070E-02
1.425	1.050	3.001E-03	8.000E-02	1.334E+00	3.402E-01	4.308E-02	2.049E-02
1.511	1.100	2.358E-03	6.124E-02	5.733E-01	2.871E-01	3.195E-02	2.010E-02
1.593	1.150	1.824E-03	4.530E-02	2.918E-01	2.386E-01	2.458E-02	1.948E-02
1.689	1.200	1.397E-03	3.459E-02	1.398E-01	1.938E-01	1.864E-02	1.862E-02
1.781	1.250	1.061E-03	2.392E-02	6.591E-02	1.533E-01	1.210E-02	1.680E-02
1.874	1.300	8.306E-04	1.583E-02	3.407E-02	1.162E-01	7.798E-03	1.466E-02
2.065	1.400	5.374E-04	5.096E-03	1.161E-02	5.733E-02	3.659E-03	1.007E-02
2.463	1.600	2.368E-04	4.862E-04	1.21E-03	4.613E-03	1.492E-03	2.613E-03
2.900	1.900	6.177E-05	5.309E-04	5.288E-05	2.666E-03	3.612E-04	3.510E-04
3.359	2.000	3.449E-06	1.891E-04	2.839E-04	2.785E-03	1.419E-04	2.135E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
214	200	160.7	88.7	-1	91.2	-57.3	-16.2
217	250	153.3	88.9	-1	97.3	-57.0	-90.1
31	300	148.9	90.3	-2	109.1	-52.8	-59.4
32	350	138.3	90.8	-1	119.3	-51.0	-98.3
44	400	130.7	90.8	.1	127.7	-52.0	-142.9
59	450	123.5	91.2	.3	138.1	-54.0	-165.5
55	500	118.7	92.4	.5	154.2	-55.5	-172.8
63	550	110.7	95.6	.7	179.8	-55.7	-167.0
72	600	105.9	98.3	1.6	149.1	-54.0	-151.7
73	625	103.6	98.1	2.2	136.1	-52.9	-146.5
74	650	101.4	97.2	2.9	125.3	-51.5	-143.8
83	675	98.2	96.0	3.8	116.4	-49.9	-143.2
86	700	97.2	96.0	4.8	109.0	-48.0	-144.1
94	725	95.3	94.7	6.1	102.9	-45.8	-146.2
94	750	93.4	92.1	7.7	97.7	-43.2	-148.8
107	800	90.3	90.2	12.3	89.9	-38.6	-154.5
105	850	87.9	89.7	20.4	84.4	-27.5	-158.6
115	900	85.2	88.5	32.2	79.6	-16.5	-162.1
125	950	81.5	86.4	47.0	75.3	-5.1	-165.5
130	1000	76.9	83.2	62.2	71.3	3.8	-169.1
143	1050	72.9	81.5	77.7	69.5	8.4	-172.3
151	1100	68.5	79.3	90.4	66.3	10.6	-175.0
159	1150	63.6	76.7	100.2	64.4	13.1	-177.4
178	1200	58.1	73.4	107.3	62.0	16.0	-179.5
181	1250	50.3	70.2	104.4	62.1	18.5	177.7
187	1300	42.0	66.4	98.6	61.8	17.8	175.0
206	1400	25.3	56.3	84.2	52.6	9.5	159.4
249	1600	-10.2	-9.9	51.7	-88.4	-11.0	149.1
290	1800	-31.5	-91.3	-61.7	162.3	21.0	91.2
335	2000	-108.5	-125.2	-85.8	125.1	128.0	9.6

REC = 41

HEADING = 120. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 5. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	4.355E-01	6.962E-01	1.000E+00	4.512E-03	1.717E-03	5.140E-04
.258	.200	2.512E-01	6.732E-01	9.989E-01	1.252E-02	3.859E-03	1.517E-03
.312	.300	1.782E-01	7.245E-01	9.970E-01	3.024E-02	7.488E-03	3.320E-03
.366	.300	1.422E-01	7.757E-01	1.003E+00	7.038E-02	1.320E-02	7.612E-03
.421	.400	1.214E-01	7.420E-01	1.004E+00	1.629E-01	2.203E-02	1.430E-02
.477	.450	1.072E-01	6.714E-01	9.931E-01	3.768E-01	3.495E-02	2.378E-02
.533	.500	9.620E-02	5.886E-01	9.974E-01	9.034E-01	5.272E-02	3.761E-02
.590	.500	8.664E-02	5.031E-01	9.9231E-01	2.333E+00	7.553E-02	6.019E-02
.647	.500	7.762E-02	4.043E-01	8.667E-01	6.729E+00	1.029E-01	9.960E-02
.675	.600	7.309E-02	3.363E-01	8.634E-01	1.021E+01	1.197E-01	1.190E-01
.705	.600	6.857E-02	2.476E-01	8.900E-01	1.259E+01	1.381E-01	1.199E-01
.735	.600	6.405E-02	1.795E-01	8.867E-01	1.193E+01	1.583E-01	9.851E-02
.764	.700	5.953E-02	1.467E-01	8.143E-01	9.723E+00	1.800E-01	7.412E-02
.794	.750	5.501E-02	1.309E-01	8.333E-01	7.554E+00	2.029E-01	5.780E-02
.824	.800	5.051E-02	1.186E-01	7.945E-01	5.943E+00	2.267E-01	4.887E-02
.884	.800	4.160E-02	9.069E-02	7.847E-01	3.983E+00	2.747E-01	4.248E-02
.945	.850	3.296E-02	6.040E-02	7.840E-01	2.915E+00	3.168E-01	4.138E-02
1.006	.900	2.470E-02	3.492E-02	7.882E-01	2.157E+00	3.459E-01	4.018E-02
1.068	.900	1.699E-02	1.847E-02	7.947E-01	1.503E+00	3.554E-01	3.765E-02
1.131	1.000	1.072E-02	7.869E-03	7.249E-01	1.034E+00	3.221E-01	3.434E-02
1.195	1.000	6.199E-03	1.928E-03	5.355E-01	6.937E-01	2.461E-01	3.012E-02
1.259	1.100	3.337E-03	3.307E-04	2.956E-01	4.512E-01	1.588E-01	2.519E-02
1.324	1.100	1.647E-03	1.704E-03	1.169E-01	2.842E-01	9.016E-02	1.987E-02
1.389	1.200	6.854E-04	3.734E-03	2.741E-02	1.548E-01	4.415E-02	1.312E-02
1.455	1.200	2.369E-04	5.114E-03	7.139E-03	8.333E-02	1.828E-02	7.564E-03
1.522	1.300	7.841E-05	5.554E-03	1.223E-02	5.633E-02	5.543E-03	4.017E-03
1.657	1.400	6.072E-05	4.014E-03	1.750E-02	5.153E-02	2.045E-04	1.745E-03
1.935	1.600	3.264E-05	6.294E-04	1.413E-03	1.060E-02	1.359E-03	1.202E-03
2.225	1.800	3.168E-06	2.299E-04	1.109E-04	3.365E-03	2.925E-05	2.566E-04
2.525	2.000	7.256E-07	7.435E-05	3.517E-05	1.834E-04	1.706E-04	4.596E-05

PHASE (MOTION-WAVELENGTH)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	143.8	89.6	.1	95.2	-90.6	-173.2
.258	.250	132.0	89.6	.1	100.1	-88.1	-178.8
.312	.300	121.9	90.4	.0	105.7	-86.1	-169.6
.366	.350	113.5	90.7	-.2	114.7	-84.5	-167.3
.421	.400	106.4	90.6	-.3	121.9	-83.2	-173.8
.477	.450	100.4	90.6	-.3	129.1	-81.6	179.4
.533	.500	95.1	91.3	-.4	137.6	-79.6	174.0
.590	.550	90.4	93.3	-.5	149.7	-77.1	171.2
.647	.600	86.1	99.0	-.8	171.8	-74.1	176.0
.675	.625	84.4	103.2	-1.0	169.5	-72.6	-174.9
.705	.650	82.6	105.2	-1.2	147.1	-70.9	-163.8
.735	.675	80.9	101.9	-1.5	125.6	-69.0	-155.3
.764	.700	79.3	96.0	-1.8	108.8	-67.0	-152.5
.794	.725	77.7	90.9	-2.2	96.7	-64.7	-154.5
.824	.750	76.1	87.3	-2.5	88.3	-62.2	-159.3
.884	.800	72.9	82.5	-2.9	78.0	-56.5	-170.9
.945	.850	69.9	78.7	-2.5	73.1	-49.5	178.1
1.006	.900	67.0	75.7	-.3	71.0	-41.3	169.3
1.068	.950	64.3	73.5	5.7	69.2	-30.2	163.9
1.131	1.000	60.8	68.6	15.8	68.9	-17.2	158.8
1.195	1.050	55.5	54.7	28.8	70.7	-3.6	153.3
1.259	1.100	48.3	-17.2	41.5	73.8	8.5	146.7
1.324	1.150	33.3	-80.9	49.9	80.6	18.4	138.3
1.389	1.200	26.7	-97.2	47.0	92.7	27.5	129.5
1.455	1.250	6.9	-106.8	3.5	112.1	36.7	118.0
1.522	1.300	-28.2	-114.8	-32.7	131.4	47.7	100.8
1.557	1.400	-114.6	-132.8	-35.9	177.7	-168.9	44.1
1.936	1.600	144.3	145.1	-45.0	136.3	-102.8	-36.4
2.225	1.800	35.2	48.0	-178.9	-6.3	-109.1	-151.2
2.525	2.000	-73.9	-84.0	141.2	-126.0	73.2	95.5

REC = 42 HEADING = 120. DEG SHIP SPEED = 10. KNOTS MOTION/AVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	3.948E-01	6.471E-01	9.976E-01	4.710E-03	2.153E-03	2.319E-04
.266	.250	2.222E-01	6.219E-01	9.953E-01	1.307E-02	4.514E-03	9.689E-04
.324	.300	1.531E-01	6.889E-01	1.002E+00	3.248E-02	8.186E-03	2.244E-03
.382	.350	1.201E-01	7.124E-01	1.013E+00	7.970E-02	1.281E-02	5.683E-03
.442	.400	1.001E-01	6.659E-01	1.019E+00	1.925E-01	2.249E-02	1.144E-02
.503	.450	8.666E-02	5.910E-01	1.014E+00	4.719E-01	3.530E-02	2.021E-02
.565	.500	7.626E-02	5.097E-01	9.956E-01	1.217E+00	5.304E-02	3.421E-02
.629	.550	6.741E-02	4.150E-01	9.594E-01	3.264E+00	7.576E-02	5.731E-02
.695	.600	5.915E-02	2.944E-01	9.572E-01	6.053E+00	1.045E-01	7.277E-02
.728	.625	5.515E-02	2.326E-01	9.624E-01	6.085E+00	1.217E-01	6.571E-02
.761	.650	5.125E-02	1.920E-01	9.709E-01	5.263E+00	1.407E-01	5.447E-02
.795	.675	4.745E-02	1.673E-01	9.836E-01	4.303E+00	1.614E-01	4.548E-02
.829	.700	4.366E-02	1.481E-01	1.001E+00	3.519E+00	1.837E-01	3.997E-02
.863	.725	3.986E-02	1.320E-01	1.025E+00	2.837E+00	2.072E-01	3.706E-02
.893	.750	3.615E-02	1.151E-01	1.055E+00	2.511E+00	2.311E-01	3.575E-02
.963	.800	2.891E-02	8.170E-02	1.127E+00	1.940E+00	2.764E-01	3.522E-02
1.040	.850	2.181E-02	5.400E-02	1.237E+00	1.451E+00	3.145E-01	3.407E-02
1.113	.900	1.521E-02	3.355E-02	1.314E+00	1.069E+00	3.233E-01	3.282E-02
1.187	.950	9.854E-03	1.845E-02	1.183E+00	7.931E-01	2.783E-01	3.145E-02
1.263	1.000	5.075E-03	8.172E-03	9.108E-01	5.811E-01	1.966E-01	2.956E-02
1.339	1.050	3.609E-03	2.494E-03	4.181E-01	4.233E-01	1.226E-01	2.726E-02
1.413	1.100	1.916E-03	5.918E-04	1.460E-01	2.537E-01	6.865E-02	2.069E-02
1.497	1.150	9.170E-04	7.196E-04	3.230E-02	1.371E-01	3.66E-02	1.446E-02
1.578	1.200	3.881E-04	1.625E-03	2.861E-03	6.573E-02	1.792E-02	9.190E-03
1.660	1.250	1.465E-04	2.492E-03	2.530E-03	3.166E-02	6.901E-03	5.242E-03
1.744	1.300	6.308E-05	2.874E-03	5.807E-03	1.999E-02	1.855E-03	2.545E-03
1.914	1.400	1.649E-05	1.974E-03	4.952E-03	2.199E-02	3.726E-05	8.086E-04
2.201E-05	1.500	2.201E-05	2.129E-04	5.705E-04	3.054E-03	4.475E-04	4.796E-04
2.345E-06	1.600	2.345E-06	7.798E-05	3.018E-04	1.853E-03	7.644E-05	1.069E-04
2.650	1.700	6.107E-07	1.532E-05	1.857E-05	4.495E-04	1.293E-04	3.530E-05
2.650	2.000						

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	143.9	89.4	.1	95.7	-83.4	-162.1
.266	.250	132.1	89.4	.1	101.3	-81.8	-172.8
.324	.300	122.1	90.5	-0	110.4	-79.8	-158.6
.382	.350	113.7	90.7	-2	119.3	-78.4	-161.9
.442	.400	105.6	90.6	-3	127.1	-77.4	-171.2
.503	.450	100.5	90.8	-3	135.9	-76.0	-179.0
.565	.500	95.2	92.0	-4	148.1	-74.0	176.3
.629	.550	90.5	95.6	-6	169.0	-71.3	178.0
.695	.600	85.7	101.4	-8	153.5	-68.1	-165.7
.728	.625	85.0	100.7	-9	133.2	-66.2	-157.8
.761	.650	83.3	97.6	-9	116.4	-64.0	-154.1
.795	.675	81.7	94.1	-1.0	103.8	-61.6	-154.5
.829	.700	80.1	91.2	-9	94.4	-58.9	-157.6
.863	.725	78.6	88.7	-6	87.6	-55.9	-162.0
.898	.750	77.1	85.5	-1	82.5	-52.6	-166.9
.968	.800	74.2	82.7	2.3	76.4	-44.8	-176.8
1.040	.850	71.8	80.8	7.9	72.1	-34.4	176.5
1.113	.900	69.2	79.8	18.6	69.9	-21.0	171.6
1.187	.950	65.4	74.8	34.1	67.0	-6.0	166.8
1.263	1.000	59.8	66.6	51.7	65.5	7.8	161.7
1.339	1.050	53.0	46.3	67.5	67.6	18.2	155.4
1.418	1.100	44.8	5.6	82.3	71.1	27.3	150.6
1.497	1.150	34.4	-59.1	90.7	77.4	35.7	149.0
1.578	1.200	20.1	-85.0	73.4	88.7	44.6	137.8
1.660	1.250	-1.3	-96.9	-15.7	108.2	54.6	127.8
1.744	1.300	-29.8	-106.9	-21.9	139.0	60.5	111.8
1.814	1.400	-100.1	-126.3	-44.8	174.2	-45.1	50.6
2.272	1.600	153.6	140.2	135.3	130.3	-116.0	-32.2
2.650	1.800	50.5	35.2	160.5	-16.7	-81.2	-157.0
3.050	2.000	-23.7	-59.0	-160.5	-156.5	71.3	60.0

REC = 43

HEADING = 120. DEG
RAO (MOTION/WAVEHT)**2

SHIP SPEED = 15. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	3.583E-01	5.943E-01	9.969E-01	4.764E-03	2.670E-03	7.912E-05
.275	.250	1.973E-01	5.683E-01	9.966E-01	1.357E-02	5.222E-03	5.419E-04
.335	.300	1.335E-01	5.419E-01	1.011E+00	3.471E-02	8.817E-03	1.417E-03
.393	.350	1.019E-01	6.459E-01	1.029E+00	8.328E-02	1.427E-02	4.147E-03
.463	.400	8.342E-02	5.927E-01	1.042E+00	2.349E-01	2.272E-02	9.196E-03
.530	.450	7.085E-02	5.177E-01	1.045E+00	5.572E-01	3.532E-02	1.754E-02
.599	.500	6.129E-02	4.307E-01	1.035E+00	1.412E+00	5.294E-02	3.072E-02
.669	.550	5.321E-02	3.299E-01	1.036E+00	2.678E+00	7.534E-02	4.244E-02
.742	.600	4.585E-02	2.355E-01	1.080E+00	2.754E+00	1.039E-01	3.914E-02
.773	.625	4.233E-02	2.045E-01	1.115E+00	2.420E+00	1.207E-01	3.535E-02
.815	.650	3.903E-02	1.800E-01	1.150E+00	2.092E+00	1.394E-01	3.250E-02
.854	.675	3.575E-02	1.591E-01	1.199E+00	1.802E+00	1.597E-01	3.034E-02
.893	.700	3.256E-02	1.396E-01	1.257E+00	1.596E+00	1.812E-01	3.011E-02
.932	.725	2.944E-02	1.203E-01	1.324E+00	1.420E+00	2.035E-01	2.995E-02
.971	.750	2.639E-02	1.026E-01	1.397E+00	1.290E+00	2.247E-01	3.010E-02
1.010	.800	2.016E-02	7.225E-02	1.611E+00	9.363E-01	2.645E-01	2.897E-02
1.135	.850	1.435E-02	4.876E-02	1.779E+00	7.577E-01	2.760E-01	2.829E-02
1.219	.900	9.655E-03	3.045E-02	1.614E+00	6.007E-01	2.346E-01	2.807E-02
1.305	.950	6.224E-03	1.669E-02	1.091E+00	4.562E-01	1.628E-01	2.799E-02
1.394	1.000	3.823E-03	7.514E-03	5.361E-01	3.461E-01	9.980E-02	2.512E-02
1.484	1.050	2.176E-03	2.679E-03	1.944E-01	2.223E-01	5.942E-02	2.020E-02
1.573	1.100	1.145E-03	7.049E-04	5.119E-02	1.308E-01	3.421E-02	1.522E-02
1.671	1.150	5.495E-04	3.703E-04	7.296E-03	6.790E-02	1.783E-02	1.060E-02
1.767	1.200	2.715E-04	7.194E-04	7.608E-04	2.377E-02	7.549E-03	6.274E-03
1.865	1.250	1.335E-04	1.176E-03	1.529E-03	1.244E-02	2.743E-03	3.179E-03
1.955	1.300	6.066E-05	1.399E-03	2.364E-03	8.223E-03	8.822E-04	1.384E-03
2.048	1.400	1.169E-05	9.911E-04	1.836E-03	1.174E-02	8.407E-05	3.860E-04
2.142	1.500	1.632E-05	9.333E-05	1.305E-04	1.579E-03	3.211E-04	2.216E-04
2.238	1.600	7.754E-07	6.913E-05	7.871E-05	1.037E-03	1.048E-04	5.459E-05
2.335	1.700	3.150E-07	9.389E-06	1.160E-05	2.725E-04	9.243E-05	2.620E-05

PHASE (MOTION-WAVEVENT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.216	.200	144.0	89.2	.1	97.6	-76.9	-140.5
.275	.250	132.3	89.2	.1	103.4	-75.9	-165.1
.335	.300	122.3	90.5	.1	115.7	-73.5	-144.6
.398	.350	113.9	90.7	.2	125.7	-72.4	-155.9
.463	.400	106.7	90.8	.3	134.9	-71.8	-168.3
.533	.450	100.6	91.3	.3	145.8	-70.7	-176.3
.593	.500	95.3	93.3	.3	165.5	-68.7	-178.1
.659	.550	90.9	97.7	.4	163.6	-65.9	-168.8
.742	.600	87.3	98.2	.1	129.0	-62.1	-156.9
.779	.625	85.6	96.4	.1	115.5	-59.8	-155.3
.816	.650	84.0	94.3	.5	105.0	-57.1	-156.3
.854	.675	82.4	92.2	1.1	98.9	-54.2	-159.0
.893	.700	80.9	90.3	2.0	90.7	-50.8	-162.6
.932	.725	79.5	88.4	3.4	86.1	-47.0	-166.8
.971	.750	78.1	86.5	5.3	82.7	-42.9	-171.2
1.052	.800	75.9	85.2	12.6	76.9	-31.8	-177.0
1.135	.850	73.5	83.5	25.6	72.6	-17.4	178.6
1.219	.900	69.8	80.2	43.9	69.5	-1.7	174.2
1.305	.950	64.5	74.0	63.6	67.5	11.7	169.2
1.394	1.000	58.3	66.3	82.8	67.3	21.8	164.6
1.484	1.050	51.2	55.5	99.7	68.4	30.2	160.8
1.575	1.100	42.5	29.2	112.5	71.1	38.6	156.7
1.671	1.150	31.1	-31.1	119.4	76.3	47.5	151.8
1.767	1.200	15.8	-74.5	64.8	89.0	52.9	144.9
1.865	1.250	-1.1	-93.1	11.6	-114.4	52.7	134.9
1.965	1.300	-19.1	-104.2	1.1	-151.6	44.9	119.0
2.072	1.400	-83.4	-123.7	-15.2	162.4	-10.0	50.5
2.172	1.500	159.0	130.1	-8.1	111.8	-131.3	-37.1
2.276	1.600	30.5	13.4	137.0	-24.2	-72.3	-164.2
2.375	1.800	5.0	-64.7	-142.6	-160.1	76.7	52.9

REC = 44

HEADING = 120. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	3.259E-01	5.415E-01	9.997E-01	4.785E-03	3.257E-03	3.513E-05
.283	.250	1.759E-01	5.150E-01	1.002E+00	1.402E-02	5.999E-03	2.716E-04
.347	.300	1.164E-01	5.878E-01	1.026E+00	3.709E-02	9.316E-03	9.232E-04
.414	.350	8.714E-02	5.798E-01	1.052E+00	1.010E-01	1.447E-02	2.990E-03
.484	.400	7.044E-02	5.256E-01	1.072E+00	2.685E-01	2.257E-02	7.398E-03
.556	.450	5.852E-02	4.533E-01	1.084E+00	7.093E-01	3.489E-02	1.542E-02
.631	.500	4.985E-02	3.621E-01	1.084E+00	1.591E+00	5.232E-02	2.742E-02
.709	.550	4.255E-02	2.688E-01	1.139E+00	2.248E+00	7.332E-02	3.016E-02
.789	.600	3.608E-02	1.997E-01	1.231E+00	1.790E+00	1.005E-01	2.542E-02
.870	.625	3.307E-02	1.770E-01	1.293E+00	1.531E+00	1.157E-01	2.379E-02
.952	.650	3.019E-02	1.572E-01	1.368E+00	1.328E+00	1.344E-01	2.303E-02
.104	.675	2.740E-02	1.387E-01	1.455E+00	1.176E+00	1.534E-01	2.291E-02
.157	.700	2.471E-02	1.208E-01	1.554E+00	1.053E+00	1.730E-01	2.318E-02
.201	.725	2.203E-02	1.036E-01	1.671E+00	9.573E-01	1.927E-01	2.326E-02
.245	.750	1.929E-02	8.855E-02	1.832E+00	8.323E-01	2.114E-01	2.272E-02
.289	.800	1.412E-02	6.326E-02	2.117E+00	6.458E-01	2.307E-01	2.253E-02
.333	.850	9.720E-03	4.302E-02	2.029E+00	5.189E-01	2.047E-01	2.313E-02
.377	.900	6.506E-03	2.582E-02	1.432E+00	4.299E-01	1.454E-01	2.431E-02
.421	.950	4.113E-03	1.457E-02	7.188E-01	3.173E-01	9.156E-02	2.208E-02
.465	1.000	2.461E-03	6.993E-03	2.774E-01	2.173E-01	5.757E-02	1.874E-02
.509	1.050	1.381E-03	2.818E-03	8.412E-02	1.374E-01	3.486E-02	1.507E-02
.553	1.100	7.476E-04	8.181E-04	1.845E-02	7.760E-02	1.838E-02	1.104E-02
.597	1.150	4.125E-04	1.914E-04	3.198E-03	3.597E-02	8.151E-03	7.026E-03
.641	1.200	2.244E-04	2.933E-04	1.146E-03	1.459E-02	3.281E-03	3.945E-03
.685	1.250	1.161E-04	5.839E-05	1.237E-03	5.714E-03	1.316E-03	1.876E-03
.729	1.300	5.887E-05	7.929E-05	1.276E-03	4.871E-03	4.830E-04	7.193E-04
.773	1.400	1.330E-05	5.437E-05	8.219E-04	8.059E-03	5.452E-05	2.063E-04
.817	1.500	1.187E-05	5.009E-05	1.497E-04	1.074E-03	2.460E-04	1.336E-04
.861	1.600	5.538E-07	5.177E-05	6.687E-05	8.209E-04	7.585E-05	4.040E-05
.905	1.700	3.375E-07	2.134E-05	1.039E-05	1.159E-04	6.472E-05	1.463E-05

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	144.1	89.0	.0	97.9	-73.5	-95.8
.283	.250	132.4	89.1	.0	104.9	-70.1	-154.2
.347	.300	122.5	90.6	.2	120.2	-67.0	-126.5
.414	.350	114.1	90.8	.2	130.6	-66.5	-149.3
.484	.400	106.9	90.9	.1	140.8	-66.4	-165.6
.556	.450	100.8	92.0	.1	153.3	-65.7	-173.6
.631	.500	95.5	94.9	.0	179.8	-63.9	-172.1
.703	.550	91.5	98.9	.4	142.9	-60.8	-157.5
.779	.600	87.9	96.7	1.3	113.0	-56.4	-151.4
.830	.625	86.3	94.8	2.1	102.7	-53.7	-152.7
.872	.650	84.7	92.8	3.2	94.8	-50.6	-155.7
.914	.675	83.2	91.0	4.7	88.8	-47.1	-159.6
.957	.700	81.7	89.1	6.7	84.3	-43.1	-163.9
1.001	.725	80.5	87.8	9.6	80.8	-38.4	-168.0
1.045	.750	79.5	87.6	14.0	77.6	-32.6	-170.6
1.136	.800	77.4	86.4	27.4	72.3	-19.4	-175.1
1.229	.850	74.2	83.8	46.7	68.2	-2.4	-179.4
1.325	.900	69.3	78.8	67.9	65.3	11.4	175.7
1.424	.950	63.9	74.8	89.5	64.1	21.7	171.9
1.525	1.000	57.8	69.4	107.9	63.9	30.2	168.6
1.629	1.050	50.2	60.1	122.7	64.5	39.1	165.4
1.735	1.100	39.8	41.7	128.2	67.5	47.4	161.5
1.844	1.150	26.9	-8.3	109.6	74.9	51.8	156.4
1.955	1.200	13.2	-69.2	62.9	89.5	51.5	149.9
2.070	1.250	-2.2	-92.6	28.5	120.1	45.0	140.2
2.187	1.300	-23.6	-105.5	8.0	162.9	31.3	122.1
2.303	1.400	-79.3	-124.5	-14.0	156.4	5.0	44.0
2.424	1.500	161.9	115.8	-16.1	95.8	-140.1	-47.1
2.541	1.600	57.0	5.2	139.2	-33.1	-65.2	-178.0
2.660	1.700	26.8	-102.7	-134.6	-165.3	75.9	50.9

REC = 45

HEADING = 120. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 25. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.225	.200	2.996E-01	4.915E-01	1.005E+00	4.776E-03	3.882E-03	4.940E-05
.291	.250	1.573E-01	4.728E-01	1.015E+00	1.425E-02	6.574E-03	1.143E-04
.359	.300	1.020E-01	5.231E-01	1.048E+00	3.934E-02	9.601E-03	7.230E-04
.430	.350	7.496E-02	5.167E-01	1.081E+00	1.130E-01	1.434E-02	2.223E-03
.505	.400	5.925E-02	4.683E-01	1.109E+00	3.110E-01	2.200E-02	6.120E-03
.583	.450	4.877E-02	3.909E-01	1.128E+00	7.997E-01	3.401E-02	1.352E-02
.664	.500	4.094E-02	3.014E-01	1.158E+00	1.445E+00	5.033E-02	2.031E-02
.749	.550	3.441E-02	2.257E-01	1.258E+00	1.374E+00	6.979E-02	1.934E-02
.836	.600	2.875E-02	1.767E-01	1.398E+00	1.045E+00	9.527E-02	1.779E-02
.881	.625	2.615E-02	1.574E-01	1.492E+00	9.218E-01	1.104E-01	1.775E-02
.927	.650	2.368E-02	1.392E-01	1.602E+00	8.307E-01	1.268E-01	1.807E-02
.974	.675	2.131E-02	1.217E-01	1.735E+00	7.632E-01	1.442E-01	1.862E-02
1.022	.700	1.891E-02	1.050E-01	1.891E+00	6.761E-01	1.617E-01	1.888E-02
1.070	.725	1.653E-02	9.031E-02	2.093E+00	5.928E-01	1.774E-01	1.802E-02
1.119	.750	1.424E-02	7.738E-02	2.280E+00	5.259E-01	1.882E-01	1.807E-02
1.220	.800	1.010E-02	5.551E-02	2.389E+00	4.270E-01	1.823E-01	1.877E-02
1.324	.850	6.900E-03	3.765E-02	1.853E+00	3.627E-01	1.402E-01	2.035E-02
1.432	.900	4.485E-03	2.270E-02	1.005E+00	2.733E-01	9.193E-02	1.916E-02
1.542	.950	2.786E-03	1.363E-02	4.150E-01	2.013E-01	6.011E-02	1.698E-02
1.655	1.000	1.642E-03	6.362E-03	1.402E-01	1.361E-01	3.794E-02	1.440E-02
1.774	1.050	9.448E-04	2.629E-03	3.644E-02	8.352E-02	1.996E-02	1.102E-02
1.894	1.100	5.490E-04	5.070E-04	8.302E-03	4.473E-02	9.188E-03	7.588E-03
2.018	1.150	3.178E-04	1.033E-04	2.185E-03	1.396E-02	4.002E-03	4.693E-03
2.145	1.200	1.745E-04	1.821E-04	9.613E-04	7.504E-03	1.463E-03	2.478E-03
2.276	1.250	9.858E-05	3.047E-04	8.797E-04	3.224E-03	5.949E-04	1.083E-03
2.409	1.300	5.484E-05	5.023E-04	7.574E-04	3.466E-03	3.012E-04	3.810E-04
2.540	1.350	9.497E-06	3.247E-04	4.044E-04	5.865E-03	3.004E-05	1.396E-04
2.686	1.400	8.840E-06	3.742E-05	1.419E-04	8.686E-04	1.998E-04	9.344E-05
2.830	1.450	5.285E-07	4.034E-05	3.811E-05	6.291E-04	5.486E-05	3.744E-05
2.974	1.500	2.648E-07	1.888E-05	6.340E-06	1.298E-04	4.042E-05	1.411E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	144.2	88.7	-1.1	98.3	-63.9	-54.2
.291	.250	132.6	89.1	-1.1	107.7	-63.7	-121.6
.359	.300	122.8	90.6	-1.1	125.5	-60.4	-105.6
.430	.350	114.3	93.9	.0	137.0	-60.5	-141.9
.505	.400	107.0	91.3	.2	149.2	-61.4	-162.0
.583	.450	100.9	92.9	.4	168.2	-61.2	-168.8
.664	.500	95.9	96.8	.7	160.7	-59.5	-161.8
.749	.550	92.0	98.1	1.8	126.8	-55.1	-150.4
.836	.600	88.5	95.4	3.6	103.9	-51.3	-150.2
.927	.625	86.8	93.8	5.1	90.1	-48.2	-153.0
.974	.650	85.3	92.1	7.0	90.1	-44.7	-156.8
1.022	.675	83.9	90.3	9.5	85.6	-40.6	-161.0
1.070	.700	82.8	89.8	13.2	81.8	-35.6	-164.2
1.119	.725	81.9	89.6	18.5	78.5	-29.5	-166.7
1.174	.750	80.9	89.2	25.4	75.6	-22.6	-168.9
1.221	.800	78.3	87.4	44.2	70.7	-6.8	-173.1
1.324	.850	74.2	83.6	66.6	66.8	7.9	-177.7
1.432	.900	69.5	80.9	90.1	64.8	19.2	178.6
1.542	.950	64.0	77.5	118.2	63.6	28.3	175.5
1.656	1.000	57.4	72.4	126.4	63.1	37.9	172.7
1.774	1.050	47.6	65.3	131.5	64.9	46.8	169.1
1.894	1.100	36.1	53.1	123.3	69.2	51.9	165.1
2.018	1.150	23.8	15.9	98.2	77.1	52.5	160.3
2.145	1.200	7.3	-74.1	54.5	95.4	46.3	152.9
2.276	1.250	-11.2	-98.8	25.1	133.0	33.1	141.7
2.409	1.300	-29.9	-109.1	10.0	174.9	20.9	121.8
2.586	1.400	-79.4	-130.2	8.7	150.7	42.5	33.8
3.280	1.600	168.2	99.6	-25.0	87.2	-144.0	-55.0
3.926	1.800	65.3	4.4	141.8	-38.7	-62.1	178.0
4.625	2.000	12.1	-133.1	-145.5	-139.5	66.9	65.2

REC = 46 HEADING = 135. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
277	200	5.493E-01	4.517E-01	9.977E-01	3.150E-03	3.156E-03	7.243E-04
282	250	3.636E-01	4.327E-01	9.909E-01	8.743E-03	7.237E-03	2.009E-03
317	300	2.847E-01	4.685E-01	9.854E-01	2.217E-02	1.428E-02	4.547E-03
330	350	2.407E-01	4.868E-01	9.806E-01	5.581E-02	2.537E-02	1.002E-02
400	400	2.107E-01	4.498E-01	9.635E-01	1.382E-01	4.232E-02	1.801E-02
433	450	1.861E-01	3.901E-01	9.285E-01	3.440E-01	6.637E-02	2.865E-02
566	500	1.635E-01	3.243E-01	8.715E-01	8.952E-01	9.784E-02	4.332E-02
566	550	1.415E-01	2.577E-01	7.918E-01	2.559E+00	1.351E-01	6.637E-02
667	600	1.188E-01	1.784E-01	7.121E-01	7.372E+00	1.775E-01	1.004E-01
693	625	1.074E-01	1.197E-01	6.799E-01	1.036E+01	2.014E-01	1.033E-01
723	650	9.622E-02	7.048E-02	6.476E-01	1.111E+01	2.260E-01	8.278E-02
675	675	8.515E-02	4.769E-02	6.162E-01	8.086E+00	2.506E-01	5.805E-02
700	700	7.442E-02	3.822E-02	5.865E-01	6.015E+00	2.742E-01	4.253E-02
725	725	6.409E-02	3.133E-02	5.590E-01	4.997E+00	2.957E-01	3.469E-02
854	750	5.429E-02	2.430E-02	5.340E-01	3.447E+00	3.132E-01	3.087E-02
919	800	3.565E-02	1.101E-02	4.989E-01	2.152E+00	3.342E-01	2.723E-02
934	850	2.222E-02	2.463E-03	4.372E-01	1.386E+00	3.235E-01	2.372E-02
1022	900	1.145E-02	1.116E-04	3.783E-01	7.872E-01	2.862E-01	1.895E-02
1118	950	4.654E-03	7.766E-04	2.711E-01	4.259E-01	2.134E-01	1.385E-02
1185	1000	1.346E-03	2.896E-03	1.300E-01	2.233E-01	1.214E-01	8.999E-03
1255	1050	1.922E-04	5.047E-03	3.767E-02	1.254E-01	4.875E-02	5.085E-03
1325	1100	2.847E-06	6.206E-03	2.422E-02	9.337E-02	1.185E-02	2.630E-03
1396	1150	9.989E-05	5.245E-03	4.020E-02	7.959E-02	4.789E-04	1.464E-03
1467	1200	1.761E-04	3.506E-03	4.274E-02	7.075E-02	1.495E-03	1.466E-03
1540	1250	1.623E-04	2.009E-03	2.858E-02	5.402E-02	5.207E-03	1.768E-03
1614	1300	1.035E-04	1.119E-03	1.226E-02	3.265E-02	6.800E-03	1.754E-03
1784	1400	3.659E-05	6.031E-04	3.396E-04	4.998E-03	2.554E-03	7.911E-04
2075	1500	2.727E-05	1.513E-04	1.478E-04	1.997E-03	4.021E-04	1.881E-04
2401	1800	7.802E-06	3.099E-05	6.039E-05	5.560E-04	4.871E-06	4.965E-05
2742	2000	1.677E-06	1.379E-06	4.340E-05	3.747E-04	4.731E-06	2.862E-05

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.207	.200	132.8	89.6	.1	98.7	-89.5	-174.0
.262	.250	120.4	89.6	.1	103.8	-87.2	-178.8
.317	.300	110.9	90.3	.0	112.3	-85.3	-171.7
.373	.350	103.5	90.5	-.2	121.5	-83.6	-172.1
.431	.400	97.4	90.4	-.3	129.3	-81.8	-178.0
.488	.450	92.3	90.6	-.4	136.7	-79.6	-176.1
.546	.500	87.7	91.9	-.7	145.4	-76.9	-171.5
.605	.550	83.5	95.6	-1.1	158.6	-73.6	-170.0
.667	.600	79.8	105.4	-2.5	-172.9	-69.8	-180.0
.698	.625	78.2	110.2	-3.5	-149.9	-67.7	-168.9
.728	.650	76.6	108.1	-3.2	-126.3	-65.4	-159.6
.760	.675	75.0	99.5	-4.0	-107.8	-62.9	-157.2
.791	.700	73.5	91.6	-4.9	-95.3	-60.1	-150.9
.823	.725	71.9	85.6	-5.8	-87.1	-57.1	-167.7
.854	.750	70.4	83.3	-6.6	-82.1	-53.7	-175.1
.889	.800	67.5	79.7	-7.7	-77.9	-46.0	-171.0
.930	.850	64.6	81.0	-7.1	-79.2	-37.0	-158.6
1.050	.900	62.0	116.3	-2.8	-81.1	-25.0	-151.1
1.118	.950	58.6	-124.6	5.3	-86.8	-10.5	-143.4
1.185	1.000	53.2	-119.4	12.9	-97.9	5.3	-133.5
1.255	1.050	43.2	-121.3	4.1	-116.4	20.1	-118.6
1.325	1.100	-91.4	-128.9	-35.5	-140.3	33.0	-93.3
1.395	1.150	-140.3	-135.8	-49.2	-164.7	54.4	-55.3
1.467	1.200	-153.8	-140.1	-44.4	177.2	-135.4	16.7
1.540	1.250	-169.2	-168.0	-36.4	153.7	-121.5	-9.0
1.614	1.300	170.3	167.9	-29.9	151.1	-110.7	-27.5
1.684	1.400	95.1	102.5	-75.6	95.5	-99.6	-69.3
2.075	1.600	-64.8	-28.1	-143.4	-26.9	119.7	158.3
2.401	1.800	140.0	177.1	15.4	165.4	6.2	-3.1
2.742	2.000	-12.9	17.3	138.3	-16.4	-71.8	172.2

REC = 47

HEADING = 135. DEG
RAOSHIP SPEED = 10. KNOTS
(MOTION/HAVENT)**2

SHIP SPEED = 10. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	4.786E-01	4.090E-01	9.956E-01	3.264E-03	3.703E-03	3.680E-04
.273	.250	3.062E-01	3.877E-01	9.955E-01	9.355E-03	8.041E-03	1.315E-03
.333	.300	2.319E-01	4.357E-01	9.939E-01	2.513E-02	1.496E-02	3.214E-03
.395	.350	1.903E-01	4.328E-01	9.960E-01	6.743E-02	2.594E-02	7.573E-03
.459	.400	1.620E-01	3.874E-01	9.869E-01	1.732E-01	4.278E-02	1.424E-02
.525	.450	1.394E-01	3.279E-01	9.603E-01	4.837E-01	6.691E-02	2.383E-02
.593	.500	1.194E-01	2.647E-01	9.182E-01	1.415E+00	9.856E-02	3.887E-02
.662	.550	1.006E-01	1.892E-01	8.664E-01	1.369E+00	1.369E-01	5.885E-02
.734	.600	8.225E-02	9.912E-02	8.481E-01	4.845E+00	1.846E-01	5.010E-02
.770	.625	7.344E-02	7.607E-02	8.435E-01	3.989E+00	2.110E-01	3.876E-02
.807	.650	6.490E-02	6.285E-02	8.434E-01	3.127E+00	2.383E-01	3.135E-02
.844	.675	5.668E-02	5.236E-02	8.486E-01	2.473E+00	2.657E-01	2.744E-02
.882	.700	4.881E-02	4.234E-02	8.583E-01	2.003E+00	2.918E-01	2.551E-02
.920	.725	4.136E-02	3.264E-02	8.723E-01	1.651E+00	3.149E-01	2.449E-02
.959	.750	3.440E-02	2.369E-02	8.847E-01	1.392E+00	3.328E-01	2.375E-02
1.033	.800	2.178E-02	1.093E-02	9.187E-01	9.235E-01	3.525E-01	2.145E-02
1.118	.850	1.193E-02	3.746E-03	8.805E-01	5.802E-01	3.263E-01	1.863E-02
1.201	.900	5.550E-03	4.385E-04	6.250E-01	3.546E-01	2.367E-01	1.545E-02
1.295	.950	2.176E-03	1.945E-04	2.723E-01	2.085E-01	1.309E-01	1.198E-02
1.371	1.000	6.344E-04	1.579E-03	5.927E-02	1.102E-01	5.783E-02	7.922E-03
1.459	1.050	8.916E-05	2.845E-03	3.814E-03	5.052E-02	1.984E-02	3.988E-03
1.549	1.100	1.312E-05	2.951E-03	1.078E-02	2.931E-02	4.294E-03	1.702E-03
1.641	1.150	6.454E-05	2.535E-03	1.822E-02	2.622E-02	2.814E-04	8.044E-04
1.735	1.200	8.830E-05	1.704E-03	1.454E-02	2.512E-02	8.297E-04	7.103E-04
1.830	1.250	7.089E-05	8.973E-04	7.653E-03	1.965E-02	1.794E-03	8.082E-04
1.927	1.300	5.094E-05	4.193E-04	3.100E-03	1.089E-02	1.887E-03	7.394E-04
2.127	1.400	2.567E-05	1.855E-04	3.314E-04	1.007E-03	5.949E-04	2.539E-04
2.550	1.600	9.302E-06	5.658E-05	3.388E-04	6.573E-04	4.145E-05	6.009E-05
3.003	1.800	3.091E-06	2.020E-05	3.659E-05	3.484E-04	2.078E-05	2.696E-05
3.445	2.000	1.861E-06	3.164E-06	2.507E-05	2.377E-04	2.700E-05	1.703E-05

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
215	200	132.9	89.3	.1	99.7	-33.9	-164.6
275	250	120.5	89.3	.1	105.6	-82.2	-173.2
283	300	111.1	90.4	-.1	117.1	-80.1	-152.6
335	350	103.6	90.5	-.3	126.7	-78.5	-167.9
459	400	97.5	90.4	-.4	135.0	-75.9	-176.0
525	450	92.3	91.1	-.6	144.7	-74.6	177.6
593	500	87.8	93.6	-.9	159.6	-71.5	174.9
662	550	83.8	100.9	-1.4	170.1	-67.7	-176.1
734	600	80.6	102.2	-2.0	185.1	-63.0	-158.6
770	625	79.0	97.3	-2.3	197.8	-60.3	-157.0
807	650	77.5	92.6	-2.5	205.8	-57.2	-160.2
844	675	76.0	88.9	-2.6	217.6	-53.7	-155.7
882	700	74.5	86.2	-2.3	222.2	-49.8	-172.0
920	725	73.2	83.9	-1.5	228.8	-45.5	-178.2
959	750	71.9	82.0	.0	237.0	-40.8	175.7
1039	800	69.6	80.5	6.4	244.4	-29.8	167.2
1113	850	67.1	79.1	19.5	252.2	-12.9	161.2
1201	900	62.8	73.0	38.3	260.6	5.0	154.9
1295	950	58.9	68.6	57.7	269.3	21.4	146.8
1371	1000	46.1	-89.6	70.8	279.8	35.4	136.9
1459	1050	29.7	-103.5	36.6	289.0	49.6	125.0
1549	1100	-79.4	-111.3	-29.1	298.9	68.0	104.9
1641	1150	-130.6	-126.5	-27.1	305.9	127.2	69.7
1735	1200	-150.3	-138.2	-19.8	315.4	-123.8	28.5
1832	1250	-173.1	-155.8	-16.0	321.7	-93.1	.1
1927	1300	158.4	177.7	-18.9	329.1	-87.2	-19.3
2027	1350	100.3	102.8	-63.9	338.0	-85.6	-64.2
2159	1400	-38.8	-42.1	149.1	349.3	77.3	149.0
2303	1450	144.3	122.6	-3.8	362.4	148.3	-6.4
2465	1500	-26.5	-9.4	-172.4	378.7	-19.4	163.2

REC = 48

HEADING = 135. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	4.190E-01	3.651E-01	9.956E-01	3.347E-03	4.308E-03	1.537E-04	
.222	2.599E-01	3.433E-01	9.931E-01	9.364E-03	8.890E-03	7.832E-04	
.285	1.903E-01	3.954E-01	1.008E+00	2.858E-02	1.546E-02	2.156E-03	
.350	1.526E-01	3.793E-01	1.019E+00	8.156E-02	2.612E-02	5.663E-03	
.419	1.267E-01	3.313E-01	1.020E+00	2.283E-01	4.266E-02	1.148E-02	
.450	1.066E-01	2.729E-01	1.007E+00	6.515E-01	6.660E-02	2.056E-02	
.563	8.935E-02	2.024E-01	9.767E-01	1.731E+00	9.788E-02	3.295E-02	
.633	7.339E-02	1.301E-01	9.994E-01	2.391E+00	1.377E-01	3.313E-02	
.718	5.870E-02	8.571E-02	1.049E+00	1.792E+00	1.867E-01	2.465E-02	
.800	5.181E-02	7.203E-02	1.089E+00	1.490E+00	2.133E-01	2.234E-02	
.825	4.522E-02	5.984E-02	1.138E+00	1.259E+00	2.419E-01	2.119E-02	
.885	3.894E-02	4.835E-02	1.196E+00	1.084E+00	2.684E-01	2.065E-02	
.923	3.302E-02	3.764E-02	1.257E+00	9.463E-01	2.925E-01	2.034E-02	
.973	2.724E-02	2.874E-02	1.341E+00	7.861E-01	3.145E-01	1.958E-02	
1.013	2.182E-02	2.156E-02	1.435E+00	6.569E-01	3.298E-01	1.873E-02	
1.053	1.277E-02	1.069E-02	1.464E+00	4.501E-01	3.127E-01	1.724E-02	
1.156	6.647E-03	3.870E-03	1.053E+00	3.079E-01	2.238E-01	1.571E-02	
1.232	3.129E-03	6.116E-04	4.737E-01	2.041E-01	1.257E-01	1.365E-02	
1.351	1.191E-03	7.494E-05	1.184E-01	1.052E-01	6.830E-02	9.197E-03	
1.533	3.235E-04	6.028E-04	1.154E-02	4.080E-02	2.559E-02	5.440E-03	
1.050	5.129E-05	1.227E-03	7.225E-04	1.306E-02	8.381E-03	2.716E-03	
1.057	1.303E-05	1.437E-03	5.607E-03	1.388E-02	1.346E-03	1.022E-03	
1.174	2.110E-05	1.202E-03	6.438E-03	1.105E-02	2.855E-06	3.797E-04	
1.087	2.715E-05	7.674E-04	4.595E-03	1.107E-02	3.318E-04	3.134E-04	
2.002	3.180E-05	3.032E-04	2.443E-03	8.456E-03	5.791E-04	3.693E-04	
2.020	2.950E-05	1.523E-04	1.073E-03	4.441E-03	5.057E-04	3.298E-04	
2.241	1.290E-05	8.100E-05	3.429E-05	5.368E-04	3.385E-04	9.609E-05	
2.401	6.693E-06	4.238E-05	1.616E-04	3.444E-04	3.947E-05	3.110E-05	
3.225	1.008E-06	1.989E-05	3.056E-05	2.182E-04	2.575E-05	1.600E-05	
3.804	6.432E-07	4.697E-06	9.776E-06	1.306E-04	1.765E-05	8.718E-06	

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
22	200	133.1	89.1	.1	101.3	-78.5	-149.7
25	250	120.6	89.2	.1	108.2	-77.4	-166.8
30	300	114.3	90.5	-2	123.4	-74.8	-152.5
43	350	103.8	90.5	-3	133.5	-73.5	-163.7
49	400	97.6	90.7	-4	143.7	-72.0	-173.7
56	450	92.4	92.1	-6	158.2	-69.7	-179.2
63	500	87.9	96.2	-8	175.6	-66.3	-176.0
73	550	84.5	100.2	-9	194.1	-61.8	-160.4
80	600	81.3	95.1	-7	103.2	-56.0	-158.2
87	625	73.8	92.2	-2	93.8	-52.4	-161.8
88	650	78.4	89.7	.8	87.1	-48.4	-166.7
93	675	77.1	87.5	2.4	82.7	-43.9	-172.2
95	700	75.8	85.4	4.8	79.8	-38.9	-177.7
103	725	74.8	84.6	8.6	77.3	-32.7	178.3
105	750	73.9	84.2	14.3	74.8	-25.3	175.4
115	800	71.4	82.1	31.7	71.6	-7.6	170.1
122	850	66.9	76.5	55.2	70.4	11.1	164.3
131	900	60.4	57.7	78.7	71.8	26.4	157.4
143	950	52.0	47.6	101.1	75.9	39.9	151.7
157	1000	33.6	33.0	115.2	87.3	53.3	144.7
164	1050	12.7	102.9	15.4	107.6	68.5	134.4
174	1100	-62.1	112.2	-15.3	143.7	80.7	115.2
187	1150	-119.7	122.1	-9.1	175.2	33.6	77.6
193	1200	-153.3	132.7	-6.9	156.4	-73.1	31.8
202	1250	-177.9	151.1	-10.7	152.8	-76.0	1.6
210	1300	161.2	179.7	-20.4	138.2	-83.0	-19.1
221	1350	113.9	90.4	-29.2	92.1	-106.7	-71.4
241	1400	32.7	50.1	161.8	72.9	33.7	130.0
305	1500	155.8	125.2	.3	142.5	166.9	-21.0
364	1600	-118.4	40.5	175.5	-40.0	-11.7	157.7

REC = 49

HEADING = 135. DEG
SHIP SPEED = 20. KNOTS
RAO (MOTION/NAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
230	200	3.685E-01	3.230E-01	9.988E-01	3.402E-03	4.944E-03	6.298E-05
295	350	2.218E-01	1.172E-01	1.004E+00	1.044E-02	9.420E-03	3.551E-04
367	300	1.585E-01	3.523E-01	1.029E+00	3.233E-02	1.564E-02	1.450E-03
441	350	1.233E-01	3.293E-01	1.049E+00	9.941E-02	2.579E-02	4.262E-03
519	400	1.005E-01	2.826E-01	1.062E+00	2.960E-01	4.183E-02	9.491E-03
603	450	8.295E-02	2.249E-01	1.063E+00	8.666E-01	6.535E-02	1.808E-02
686	500	6.803E-02	1.561E-01	1.088E+00	1.649E+00	9.581E-02	2.355E-02
775	550	5.479E-02	1.023E-01	1.172E+00	1.393E+00	1.340E-01	1.907E-02
857	600	4.294E-02	7.423E-02	1.311E+00	9.843E-01	1.828E-01	1.624E-02
915	650	3.747E-02	6.238E-02	1.403E+00	8.498E-01	2.088E-01	1.593E-02
964	700	3.229E-02	5.111E-02	1.508E+00	7.409E-01	2.445E-01	1.594E-02
1013	750	2.725E-02	4.095E-02	1.642E+00	6.499E-01	2.594E-01	1.563E-02
1064	800	2.238E-02	3.249E-02	1.813E+00	5.331E-01	2.804E-01	1.512E-02
1115	850	1.791E-02	2.526E-02	1.956E+00	4.577E-01	2.902E-01	1.480E-02
1168	900	1.395E-02	1.910E-02	1.997E+00	3.855E-01	2.825E-01	1.459E-02
1275	950	7.885E-03	9.541E-03	1.555E+00	2.835E-01	2.127E-01	1.434E-02
1366	1000	4.090E-03	3.478E-03	7.515E-01	1.995E-01	1.246E-01	1.293E-02
1501	1050	1.846E-03	7.618E-04	2.261E-01	1.102E-01	6.607E-02	9.674E-03
1623	1100	6.931E-04	6.689E-05	4.082E-02	5.566E-02	3.218E-02	6.531E-03
1743	1150	2.118E-04	2.341E-04	2.071E-03	2.253E-02	1.220E-02	3.700E-03
1863	1200	5.611E-05	5.656E-04	9.579E-04	8.233E-03	3.088E-03	1.605E-03
1993	1250	1.395E-05	7.016E-04	2.705E-03	5.156E-03	4.400E-04	5.305E-04
2132	1300	1.159E-05	6.353E-04	2.705E-03	6.044E-03	6.338E-05	1.661E-04
2263	1350	1.751E-05	4.170E-04	1.776E-03	6.335E-03	1.441E-04	1.567E-04
2410	1400	2.055E-05	1.882E-04	9.457E-04	4.742E-03	1.597E-04	1.985E-04
2553	1450	2.013E-05	6.569E-05	4.734E-04	2.435E-03	1.741E-04	1.748E-04
2653	1500	8.203E-06	5.895E-05	3.863E-05	5.011E-04	2.744E-04	5.498E-05
2800	1550	3.174E-06	2.989E-05	1.016E-04	3.176E-04	4.036E-05	2.547E-05
4205	1600	5.001E-07	9.051E-06	2.170E-05	2.179E-04	2.131E-05	1.477E-05
4959	2000	2.861E-07	2.030E-06	6.822E-06	6.661E-05	1.312E-05	6.144E-06

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.233	.200	133.2	89.0	.0	102.5	-73.2	-123.3
.296	.230	120.8	89.4	-.1	112.9	-71.8	-144.7
.367	.300	111.4	90.6	-.2	129.3	-69.4	-141.6
.441	.380	103.9	90.7	-.2	139.9	-68.6	-159.7
.513	.400	97.7	91.2	-.2	152.0	-67.4	-171.4
.600	.450	92.5	93.7	-.3	172.8	-65.1	-174.3
.689	.500	88.4	99.2	-.1	-149.0	-61.3	-162.1
.775	.550	85.1	97.5	.6	-111.9	-56.1	-153.5
.867	.600	82.1	92.5	2.5	-90.9	-48.0	-159.2
.915	.635	80.7	90.2	4.3	-84.8	-44.7	-164.3
.964	.650	79.4	88.1	6.9	-80.7	-39.8	-169.8
1.013	.673	78.4	87.0	10.8	-77.5	-33.8	-174.2
1.064	.700	77.5	86.7	16.8	-74.3	-26.4	-177.1
1.115	.725	76.6	86.2	24.9	-71.7	-17.9	-179.7
1.163	.750	75.4	85.1	35.3	-69.6	-8.5	-177.7
1.215	.800	71.3	80.8	60.7	-66.8	10.5	-172.4
1.275	.850	65.6	73.6	87.4	-66.2	28.1	-166.7
1.335	.900	58.7	63.3	112.2	-68.1	39.2	-162.4
1.501	.950	49.3	8.3	132.8	-72.5	52.4	-157.7
1.621	.980	34.0	-81.1	138.3	-83.7	65.0	-151.2
1.743	1.000	7.9	-100.4	11.2	-111.0	71.9	-140.7
1.869	1.050	-36.6	-110.7	3.5	-152.8	64.7	-121.9
1.993	1.100	-101.7	-121.6	.8	175.9	-9.4	-78.0
2.122	1.150	-140.8	-133.8	-4.4	167.8	-54.7	25.7
2.269	1.200	-168.7	-151.1	-10.9	144.2	-73.7	-3.4
2.410	1.250	-165.2	169.2	-2.7	128.5	-99.4	-25.0
2.555	1.300	117.8	76.8	32.0	36.7	-111.8	-86.9
2.855	1.400	155.0	-60.8	168.4	-79.8	33.6	-119.7
3.500	1.600	155.0	138.6	-7.8	129.9	164.0	-30.8
4.205	1.800	-32.8	-8.5	149.8	-59.4	-39.7	149.2

REC = 50

HEADING = 135. DEG
RAO (MOTION/WAVEHT)**2

SHIP SPEED = 25. KNOTS

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.237	.200	3.25E-01	2.87E-01	1.60E+00	3.44E-03	5.51E-03	5.42E-05
.308	.250	1.90E-01	2.90E-01	1.02E+00	1.10E-02	9.70E-03	2.17E-04
.384	.300	1.72E-01	3.10E-01	1.05E+00	3.71E-02	1.54E-02	1.03E-03
.444	.350	1.01E-01	2.84E-01	1.08E+00	1.20E-01	2.49E-02	3.30E-03
.503	.400	8.02E-02	2.39E-01	1.10E+00	3.70E-01	4.03E-02	6.09E-03
.563	.450	6.56E-02	1.78E-01	1.12E+00	9.40E-01	6.24E-02	1.49E-02
.622	.500	5.27E-02	1.22E-01	1.21E+00	1.06E+00	9.16E-02	1.45E-02
.681	.550	4.17E-02	8.03E-02	1.37E+00	7.39E-01	1.28E-01	1.24E-02
.740	.600	3.20E-02	6.41E-02	1.50E+00	5.96E-01	1.74E-01	1.22E-02
.800	.650	2.76E-02	5.32E-02	1.75E+00	5.36E-01	1.92E-01	1.25E-02
.859	.700	2.32E-02	4.35E-02	1.96E+00	4.49E-01	2.21E-01	1.21E-02
.918	.750	1.91E-02	3.52E-02	2.19E+00	3.81E-01	2.34E-01	1.19E-02
.977	.800	1.53E-02	2.80E-02	2.36E+00	3.79E-01	2.44E-01	1.18E-02
1.036	.850	1.20E-02	2.19E-02	2.36E+00	2.85E-01	2.84E-01	1.19E-02
1.095	.900	9.26E-03	1.65E-02	2.11E+00	2.51E-01	2.85E-01	1.22E-02
1.154	.950	5.16E-03	8.06E-03	1.17E+00	1.34E-01	1.32E-01	1.17E-02
1.213	.980	2.59E-03	3.13E-03	4.12E-01	1.15E-01	7.54E-02	9.50E-03
1.272	1.000	1.15E-03	8.56E-04	1.06E-01	6.46E-02	4.00E-02	7.11E-03
1.331	1.050	4.63E-04	8.01E-05	1.36E-02	3.01E-02	1.67E-02	4.48E-03
1.390	1.100	1.69E-04	7.94E-05	7.39E-04	1.11E-03	5.30E-03	2.31E-03
1.449	1.150	5.34E-05	2.82E-04	9.37E-04	3.88E-03	1.25E-03	9.37E-04
1.508	1.200	1.93E-05	4.37E-04	1.547E-03	3.06E-03	1.77E-04	2.62E-04
1.567	1.250	1.24E-05	2.28E-04	8.61E-04	3.94E-03	7.39E-05	7.72E-05
1.626	1.300	1.40E-05	9.23E-05	5.16E-04	3.16E-03	3.81E-05	1.33E-04
1.685	1.350	1.37E-05	4.15E-05	2.95E-04	1.58E-03	8.64E-05	1.12E-04
1.744	1.400	4.61E-06	4.09E-05	5.16E-05	4.72E-04	2.17E-04	4.12E-05
1.803	1.450	1.62E-06	2.51E-05	6.32E-05	2.81E-04	3.09E-05	2.33E-05
1.862	1.500	2.54E-07	1.01E-05	1.197E-05	1.33E-04	1.74E-05	1.14E-05
1.921	1.550	1.95E-07	4.56E-06	4.53E-06	3.31E-05	1.05E-05	2.81E-06

PHASE (MOTION-WAVEHT)

WE	M	SURF	SNAY	HEAVE	ROLL	PITCH	YAW
237	200	133.3	88.8	-1	104.1	-66.9	-76.2
303	200	121.1	89.7	-1	118.5	-65.7	-105.9
384	200	111.6	90.7	-1	135.6	-63.9	-128.4
464	200	104.1	91.0	0	147.3	-62.8	-155.4
549	200	97.9	92.1	2	153.0	-63.2	-167.8
638	200	92.7	93.5	4	-189.2	-61.0	-166.6
712	200	89.0	93.9	1.2	-135.8	-56.8	-152.0
831	200	85.7	95.5	3.2	-99.0	-50.7	-152.0
934	200	82.8	91.2	7.2	-84.5	-42.5	-161.0
983	200	81.5	89.1	10.5	-80.5	-37.4	-166.5
1042	200	80.7	89.1	15.7	-75.6	-30.7	-169.7
1093	200	79.9	88.9	23.1	-73.3	-25.8	-172.4
1155	200	78.9	88.3	33.0	-70.6	-13.9	-174.9
1213	200	77.6	87.1	45.0	-68.3	-4.2	-177.4
1272	200	75.8	85.3	58.6	-56.4	5.4	-180.0
1394	200	73.9	80.8	87.3	-64.3	22.0	-174.8
1521	200	65.1	76.5	114.0	-64.2	35.5	-170.9
1652	200	57.5	67.4	136.0	-55.6	49.0	-167.3
1783	200	45.1	37.5	144.2	-71.9	61.6	-162.3
1923	200	28.2	-78.7	112.0	-86.5	69.4	-155.7
2073	200	3.5	-102.5	25.2	-18.6	68.9	-145.3
2223	200	-41.8	-114.9	9.6	-14.5	45.8	-123.3
2373	200	-91.0	-124.4	3.0	16.5	-8.4	-72.1
2537	200	-135.3	-139.0	6.8	150.8	-41.0	-16.0
2700	200	-170.1	-164.1	13.2	137.6	-34.4	-10.9
2869	200	165.2	150.0	-1.0	119.3	-119.2	-33.1
3019	200	127.7	65.6	-14.0	30.3	-114.6	-99.9
3175	200	-13.8	-63.9	174.5	-85.0	33.6	-118.4
4007	200	164.6	137.1	-14.5	119.0	147.6	-35.5
5712	200	-36.5	-18.9	153.7	-83.9	-38.9	-143.7

REC = 51

HEADING = 150. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVERT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	6.635E-01	2.210E-01	9.952E-01	1.609E-03	4.551E-03	5.505E-04
250	250	4.735E-01	2.100E-01	9.846E-01	4.557E-03	1.052E-02	1.480E-03
300	300	3.844E-01	2.272E-01	9.733E-01	1.208E-02	2.077E-02	3.411E-03
350	350	3.294E-01	2.306E-01	9.574E-01	3.215E-02	3.707E-02	7.310E-03
400	400	2.868E-01	2.065E-01	9.236E-01	8.373E-02	6.143E-02	1.271E-02
450	450	2.483E-01	1.722E-01	8.652E-01	2.184E-01	9.486E-02	1.955E-02
500	500	2.137E-01	1.365E-01	7.829E-01	5.991E-01	1.562E-01	2.862E-02
550	550	1.730E-01	1.022E-01	6.770E-01	1.862E-01	1.808E-01	4.312E-02
600	600	1.354E-01	6.803E-02	5.807E-01	5.745E-01	2.322E-01	6.302E-02
625	625	1.183E-01	2.947E-02	5.372E-01	7.003E-01	2.820E-01	5.503E-02
650	650	9.900E-02	1.290E-02	4.950E-01	5.730E-01	2.737E-01	3.525E-02
675	675	8.200E-02	8.263E-03	4.553E-01	5.938E-01	2.919E-01	2.218E-02
700	700	6.722E-02	6.193E-03	4.186E-01	2.681E-01	3.053E-01	1.633E-02
725	725	5.372E-02	4.153E-03	3.849E-01	1.883E-01	3.122E-01	1.373E-02
750	750	4.091E-02	2.246E-03	3.537E-01	1.365E-01	3.112E-01	1.234E-02
775	775	2.910E-02	1.444E-03	2.913E-01	7.493E-01	2.820E-01	1.003E-02
800	800	8.800E-03	6.616E-04	2.205E-01	3.933E-01	2.802E-01	7.104E-03
850	850	2.340E-03	1.980E-03	1.373E-01	1.855E-01	1.394E-01	4.392E-03
900	900	2.207E-04	3.112E-03	5.680E-02	9.486E-02	5.882E-02	2.187E-03
950	950	6.066E-05	3.486E-03	3.560E-02	6.419E-02	1.106E-02	9.364E-04
1.000	1.000	2.804E-04	3.018E-03	5.963E-02	5.692E-02	1.590E-05	6.647E-04
1.050	1.050	3.462E-04	1.945E-03	6.531E-02	4.919E-02	5.200E-03	9.300E-04
1.100	1.100	2.423E-04	9.853E-04	3.999E-02	3.276E-02	1.844E-02	1.117E-03
1.151	1.151	1.266E-04	5.485E-04	1.266E-02	1.553E-02	1.071E-02	9.744E-04
1.200	1.200	6.806E-05	4.223E-04	1.064E-03	5.371E-03	6.821E-03	6.364E-04
1.250	1.250	6.771E-05	3.553E-04	8.634E-04	3.107E-03	1.775E-03	3.656E-04
1.300	1.300	6.409E-05	1.625E-04	1.533E-03	3.454E-03	4.800E-04	1.915E-04
1.350	1.350	2.501E-05	2.660E-05	2.176E-04	7.050E-04	1.115E-05	5.075E-05
1.400	1.400	6.700E-06	5.741E-06	1.895E-05	2.193E-04	4.040E-06	1.592E-05
1.450	1.450	3.791E-06	1.043E-05	2.865E-05	1.754E-05	1.789E-06	3.009E-06

PHASE (MOTION-AVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
209	200	126.2	89.6	.1	100.4	-88.9	-174.5
264	250	114.1	80.5	.1	106.3	-95.7	-179.0
320	300	105.4	90.3	-0	115.9	-84.6	-173.1
378	350	98.5	90.3	-2	125.4	-82.7	-174.8
436	400	93.1	90.2	-4	132.8	-80.6	179.4
496	450	88.4	90.6	-6	139.6	-78.0	173.6
557	500	84.1	92.5	-1.0	147.5	-74.7	169.0
619	550	80.1	98.2	-1.9	150.7	-70.7	167.8
682	600	76.7	114.1	-3.4	164.5	-66.2	-177.1
744	625	75.1	120.2	-4.4	-137.1	-63.6	-163.9
745	650	73.6	111.8	-5.6	-113.1	-60.8	-157.3
779	675	72.0	97.2	-7.0	-97.4	-57.7	-160.6
811	700	70.6	88.5	-8.5	-83.2	-54.2	-169.2
845	725	69.1	84.6	-10.0	-83.3	-50.5	-178.8
878	750	67.8	82.9	-11.4	-81.2	-46.4	172.4
915	800	65.2	115.1	-13.2	-83.1	-37.1	156.9
1.014	850	63.4	136.8	-13.1	-90.3	-25.6	144.2
1.084	900	63.1	128.9	-11.1	-101.3	-10.8	133.6
1.155	950	70.7	129.1	-17.4	-120.8	6.1	117.9
1.227	1.000	167.8	133.3	-50.4	-145.9	22.6	88.5
1.301	1.050	157.5	142.1	-63.6	-168.4	-126.6	39.5
1.375	1.100	165.9	157.3	-56.3	173.5	-129.4	-2
1.451	1.150	175.5	179.2	-44.2	157.9	-117.7	-24.2
1.528	1.200	145.8	145.0	-34.5	140.2	-105.9	-43.6
1.605	1.250	99.4	108.3	-41.7	109.0	-93.7	-65.9
1.684	1.300	50.5	76.7	-158.1	56.0	-79.4	-96.9
1.845	1.400	24.8	7.2	-154.7	-4.7	104.2	-173.7
2.182	1.600	175.7	163.2	49.6	-173.3	-95.6	19.7
2.536	1.800	10.3	14.1	176.6	2.6	-122.1	-175.2
2.909	2.000	135.3	123.5	60.0	179.2	-122.8	-28.9

REC = 52

HEADING = 150. DEG
SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	5.612E-01	1.962E-01	9.935E-01	1.698E-03	5.174E-03	2.922E-04	
.250	3.840E-01	1.839E-01	9.852E-01	4.375E-03	1.142E-02	9.728E-04	
.300	3.005E-01	2.082E-01	9.847E-01	1.433E-02	2.149E-02	2.451E-03	
.350	2.487E-01	1.999E-01	9.771E-01	4.102E-02	3.765E-02	5.505E-03	
.400	2.095E-01	1.725E-01	9.529E-01	1.155E-01	6.208E-02	9.900E-03	
.450	1.765E-01	1.400E-01	9.074E-01	3.391E-01	9.597E-02	1.606E-02	
.500	1.451E-01	1.066E-01	8.391E-01	1.104E+00	1.377E-01	2.595E-02	
.550	1.153E-01	6.285E-02	7.637E-01	2.926E+00	1.871E-01	3.514E-02	
.600	8.738E-02	2.588E-02	7.491E-01	2.476E+00	2.434E-01	2.072E-02	
.625	7.437E-02	2.008E-02	7.378E-01	1.825E+00	2.715E-01	1.551E-02	
.650	6.215E-02	1.584E-02	7.311E-01	1.350E+00	2.975E-01	1.302E-02	
.675	5.092E-02	1.181E-02	7.282E-01	1.044E+00	3.197E-01	1.135E-02	
.700	4.064E-02	8.044E-03	7.259E-01	8.211E-01	3.355E-01	1.117E-02	
.725	3.152E-02	4.845E-03	7.181E-01	6.554E-01	3.425E-01	1.055E-02	
.750	2.342E-02	2.524E-02	7.075E-01	5.106E-01	3.413E-01	9.758E-03	
.800	1.095E-02	4.167E-04	6.509E-01	2.810E-01	3.062E-01	7.840E-03	
.850	3.874E-03	5.935E-05	4.243E-01	1.884E-01	2.092E-01	5.798E-03	
.900	9.074E-04	7.969E-04	1.387E-01	7.530E-02	9.907E-02	3.813E-03	
.950	6.567E-05	1.747E-03	1.385E-02	3.815E-02	3.201E-02	2.052E-03	
1.000	3.413E-05	1.856E-02	1.444E-02	2.185E-02	5.474E-03	7.789E-04	
1.050	1.501E-04	1.452E-03	2.843E-02	1.552E-02	3.093E-04	3.897E-04	
1.100	1.175E-04	4.187E-04	1.009E-02	1.593E-02	2.344E-03	4.416E-04	
1.150	6.477E-05	1.935E-04	2.613E-03	1.031E-03	3.887E-03	5.002E-04	
1.200	4.563E-05	1.314E-04	4.674E-04	4.233E-03	3.145E-03	3.913E-04	
1.250	3.663E-05	1.042E-04	3.855E-04	7.053E-04	1.505E-03	2.148E-04	
1.300	2.596E-05	4.232E-05	2.447E-04	1.053E-03	3.283E-04	1.020E-04	
1.400	1.031E-05	8.871E-06	5.406E-05	3.499E-04	5.602E-05	5.592E-05	
1.500	3.983E-06	2.503E-06	2.666E-05	1.511E-04	2.282E-05	2.059E-05	
1.600	7.044E-07	5.545E-06	1.535E-05	5.456E-06	1.302E-05	1.380E-06	
1.700							
1.800							
1.900							
2.000							

PHASE (MOTION-AVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
219	200	126.3	89.3	.1	101.9	-84.0	-165.9
228	250	114.2	89.3	.1	108.4	-82.2	-173.8
234	300	105.5	90.3	-1	121.3	-80.0	-169.0
406	350	98.8	90.3	-3	130.8	-78.1	-171.3
473	400	93.2	90.3	-5	139.0	-75.9	-179.0
522	450	88.4	91.4	-9	148.7	-72.9	175.1
614	500	84.2	95.7	-1.4	155.8	-69.0	173.9
636	550	80.7	106.5	-2.3	153.9	-64.3	-170.0
734	600	77.6	99.6	-3.4	-107.5	-58.4	-157.3
833	625	76.1	92.9	-3.8	-94.1	-54.9	-161.5
882	650	74.7	88.3	-4.0	-85.7	-51.0	-168.7
933	675	73.3	85.2	-3.8	-90.7	-46.6	-176.4
954	700	72.1	83.1	-2.9	-78.2	-41.8	176.2
1005	750	69.8	81.8	-1.2	-77.5	-36.4	169.1
1091	800	68.0	82.3	1.8	-77.3	-30.1	163.5
1173	850	65.1	83.9	13.4	-77.3	-13.7	156.3
1265	900	60.3	-134.7	32.0	-81.4	5.9	148.5
1350	950	57.4	-114.2	50.6	-91.2	25.4	138.0
1435	1000	-142.6	-116.3	42.8	-110.4	42.8	122.0
1521	1050	-149.7	-127.9	-33.0	-140.8	65.0	97.4
1650	1100	-152.8	-133.0	-31.2	-168.2	160.2	53.6
1731	1150	175.9	-146.2	-20.7	173.6	-122.4	13.1
1853	1200	141.7	-168.6	-13.0	159.1	-93.6	-12.2
1951	1250	99.4	155.5	-15.8	141.8	-84.4	-32.6
2068	1300	60.1	114.0	-49.0	105.3	-74.1	-56.6
2291	1400	-24.0	78.4	-105.5	34.8	-72.2	-93.0
2754	1500	157.8	170.4	-164.8	-20.0	155.4	-177.8
3273	1600	-21.4	-5.4	68.9	158.2	95.8	6.6
3318	2000	160.8	128.4	-167.4	-20.3	-43.6	169.4
				15.8	142.4	-134.9	-52.0

REC = 53

HEADING = 150. DEG
RAO

SHIP SPEED = 15. KNOTS
(MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	4.780E-01	1.716E-01	9.938E-01	1.752E-03	5.836E-03	1.324E-04
.233	.250	3.152E-01	1.647E-01	9.909E-01	5.437E-03	1.218E-02	5.541E-04
.261	.300	2.382E-01	1.051E-01	1.002E+00	1.714E-02	2.184E-02	1.689E-03
.474	.350	1.914E-01	1.708E-01	1.005E+00	5.266E-02	3.782E-02	4.141E-03
.503	.400	1.570E-01	1.433E-01	9.944E-01	1.597E-01	6.182E-02	7.914E-03
.538	.450	1.285E-01	1.123E-01	9.957E-01	5.931E-01	9.557E-02	1.396E-02
.611	.500	1.031E-01	7.469E-02	9.902E-01	1.333E+00	1.379E-01	2.019E-02
.756	.550	7.732E-02	3.952E-02	9.608E-01	1.256E+00	1.909E-01	1.515E-02
.846	.600	5.886E-02	2.523E-02	1.017E+00	8.346E-01	2.507E-01	1.074E-02
.891	.625	4.939E-02	1.994E-02	1.060E+00	6.748E-01	2.800E-01	1.000E-02
.933	.650	4.063E-02	1.502E-02	1.108E+00	5.882E-01	3.022E-01	9.629E-03
.956	.675	3.263E-02	1.059E-02	1.151E+00	4.987E-01	3.261E-01	9.332E-03
1.024	.700	2.510E-02	7.357E-03	1.226E+00	3.683E-01	3.428E-01	8.738E-03
1.034	.725	1.855E-02	4.817E-03	1.279E+00	2.890E-01	3.457E-01	8.198E-03
1.114	.750	1.310E-02	2.878E-03	1.360E+00	2.267E-01	3.277E-01	7.644E-03
1.216	.800	5.651E-03	5.745E-04	8.741E-01	1.379E-01	2.279E-01	6.482E-03
1.243	.850	1.395E-03	1.702E-05	3.388E-01	8.125E-02	1.147E-01	5.185E-03
1.452	.900	4.429E-04	3.725E-04	4.731E-02	3.733E-02	4.485E-02	2.938E-03
1.565	.950	2.553E-05	7.758E-04	2.366E-04	1.833E-02	1.344E-02	1.344E-03
1.682	1.000	2.412E-05	8.270E-04	8.883E-03	7.443E-03	2.139E-03	4.893E-04
1.802	1.050	6.882E-05	6.875E-04	1.566E-02	7.163E-03	1.175E-04	1.886E-04
1.925	1.100	5.302E-05	1.600E-04	6.751E-03	6.834E-03	9.475E-04	1.936E-04
2.052	1.150	3.822E-05	3.823E-04	2.895E-03	4.009E-03	1.354E-03	2.113E-04
2.182	1.200	3.722E-05	6.710E-05	8.516E-04	1.511E-03	8.746E-04	1.571E-04
2.315	1.250	2.566E-05	4.503E-05	2.121E-04	4.092E-04	4.195E-04	7.876E-05
2.443	1.300	1.771E-05	3.955E-05	2.755E-05	5.370E-04	2.214E-04	3.728E-05
2.726	1.400	1.467E-05	2.227E-05	3.945E-04	5.779E-04	3.448E-06	2.930E-05
3.245	1.500	3.245E-06	9.542E-06	1.800E-05	2.426E-04	3.947E-05	1.520E-05
4.009	1.600	1.386E-06	2.286E-06	1.191E-05	8.832E-05	1.901E-05	5.765E-06
.4.728	2.000	7.420E-07	9.397E-07	6.303E-06	1.866E-05	6.186E-06	1.704E-06

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	126.5	89.1	.1	103.9	-79.3	-153.5
.293	.200	114.4	89.3	.0	112.6	-77.7	-163.5
.361	.300	105.7	90.4	-.2	128.0	-75.2	-156.8
.434	.300	98.9	90.4	-.4	137.8	-73.5	-168.0
.509	.400	93.3	90.8	-.6	148.1	-71.3	-177.0
.583	.400	88.5	93.2	-.9	164.9	-68.0	179.2
.671	.500	84.6	100.7	-1.3	-153.2	-63.5	-170.2
.755	.500	81.4	99.4	-1.5	-114.1	-57.7	-156.9
.845	.600	78.5	91.4	-.8	-83.6	-50.1	-163.9
.891	.600	77.2	88.4	.3	-83.3	-45.5	-170.3
.938	.600	75.9	86.0	2.3	-79.5	-40.3	-176.9
.985	.600	74.7	84.0	5.3	-77.7	-34.5	176.5
1.034	.700	74.0	83.9	10.3	-75.2	-27.0	172.8
1.084	.700	73.1	83.6	17.7	-73.4	-18.3	169.6
1.134	.750	72.1	82.9	27.5	-72.3	-8.4	166.6
1.235	.800	68.2	78.3	52.9	-72.3	12.8	159.9
1.343	.800	62.1	-58.5	79.1	-76.0	31.1	151.2
1.452	.900	53.7	-101.9	102.9	-85.7	48.1	143.3
1.555	.900	35.7	-109.2	42.6	-108.1	66.3	131.6
1.682	1.000	-127.6	-115.8	-24.1	-141.8	94.0	109.9
1.802	1.000	-146.1	-126.6	-11.6	-173.9	-147.9	64.1
1.925	1.100	-166.7	-141.0	-5.4	-168.9	-89.2	17.9
2.052	1.150	166.5	-163.6	-6.1	152.6	-75.5	-8.5
2.182	1.200	140.5	157.6	-18.8	139.7	-75.5	-31.3
2.315	1.200	109.4	107.3	-47.9	79.9	-86.0	-58.8
2.453	1.300	66.9	65.8	-115.6	15.1	-103.2	-103.2
2.735	1.400	-9.2	-13.4	145.7	-35.9	-93.0	170.2
3.346	1.600	171.1	156.9	-3.7	156.1	117.0	-5.7
4.009	1.800	-10.8	-17.2	-179.1	-39.3	-25.6	165.8
4.728	2.000	145.6	141.2	-1.4	103.7	177.9	-57.3

REC = 54

HEADING = 150. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/NAVENT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
235	200	4.098E-01	1.503E-01	9.987E-01	1.812E-03	6.458E-03	5.530E-05
237	250	2.602E-01	1.518E-01	1.009E+00	5.976E-03	1.257E-02	2.804E-04
300	300	1.915E-01	1.616E-01	1.027E+00	2.566E-02	2.172E-02	1.165E-03
330	350	1.498E-01	1.451E-01	1.043E+00	6.848E-02	3.686E-02	3.163E-03
400	400	1.205E-01	1.195E-01	1.047E+00	2.301E-01	6.015E-02	6.722E-03
450	450	9.613E-02	8.816E-02	1.037E+00	7.769E-01	9.361E-02	1.261E-02
500	500	7.515E-02	5.044E-02	1.092E+00	1.128E+00	1.359E-01	1.230E-02
550	550	5.682E-02	3.212E-02	1.201E+00	7.203E-01	1.889E-01	8.207E-03
600	600	4.095E-02	2.165E-02	1.376E+00	4.726E-01	2.475E-01	7.308E-03
625	625	3.785E-02	1.677E-02	1.478E+00	4.004E-01	2.745E-01	7.272E-03
650	650	2.701E-02	1.273E-02	1.631E+00	3.210E-01	2.988E-01	6.991E-03
675	675	2.084E-02	9.391E-03	1.784E+00	2.573E-01	3.149E-01	6.751E-03
700	700	1.545E-02	6.637E-03	1.856E+00	2.082E-01	3.108E-01	6.555E-03
725	725	1.105E-02	4.407E-03	1.753E+00	1.596E-01	2.819E-01	6.384E-03
750	750	7.565E-03	2.663E-03	1.448E+00	1.399E-01	2.327E-01	6.207E-03
800	800	3.286E-03	5.708E-04	6.225E-01	8.683E-02	1.260E-01	5.319E-03
850	850	1.105E-03	2.150E-05	1.389E-01	4.208E-02	5.801E-02	3.538E-03
900	900	2.389E-04	1.383E-04	1.157E-02	1.886E-02	2.267E-02	2.007E-03
950	950	2.122E-05	3.628E-04	4.906E-04	5.884E-03	5.544E-03	8.469E-04
1000	1000	7.935E-06	4.267E-04	4.078E-03	3.455E-03	4.612E-04	2.450E-04
1050	1050	2.485E-05	3.311E-04	4.229E-03	3.693E-03	7.566E-05	7.971E-05
1100	1100	3.625E-05	1.962E-04	2.427E-03	3.397E-03	3.842E-04	9.260E-05
1150	1150	3.305E-05	7.687E-05	1.033E-03	2.353E-03	3.867E-04	1.061E-04
1200	1200	2.411E-05	2.668E-05	3.382E-04	7.816E-04	2.889E-04	7.643E-05
1250	1250	1.481E-05	3.031E-05	6.519E-05	2.912E-04	2.653E-04	3.765E-05
1300	1300	8.345E-06	3.140E-05	1.341E-05	4.606E-04	2.161E-04	2.387E-05
1350	1350	9.395E-06	1.958E-05	1.067E-04	4.090E-04	1.983E-05	2.247E-05
1400	1400	2.225E-06	8.374E-06	1.544E-05	1.569E-04	3.249E-05	1.034E-05
1450	1450	1.125E-06	2.963E-06	8.521E-06	3.974E-05	1.670E-05	3.669E-06
1500	1500	5.135E-07	1.237E-06	4.313E-06	9.815E-06	5.435E-06	7.538E-07

PHASE (MOTION-HAVEVENT)

WE	W	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.236	.200	126.6	88.9	.0	105.9	-74.1	-127.1
.307	.250	114.6	89.7	-1	118.6	-72.4	-140.1
.382	.300	105.9	90.5	-2	133.7	-70.3	-148.3
.461	.350	93.0	90.6	-3	143.6	-69.0	-165.2
.546	.400	83.4	91.6	-4	158.4	-66.9	-175.0
.634	.450	83.6	96.3	-5	176.7	-63.4	-173.8
.727	.500	85.2	101.5	-2	126.1	-58.2	-153.8
.825	.550	82.1	94.2	1.0	92.6	-51.1	-154.8
.927	.600	79.5	88.3	4.6	73.4	-41.7	-167.7
.980	.625	78.3	85.9	7.9	75.2	-35.9	-174.6
1.034	.650	77.5	85.5	13.2	71.9	-28.5	-178.7
1.089	.675	76.7	85.2	21.1	69.2	-19.7	178.0
1.146	.700	75.7	84.4	31.7	67.1	-9.7	175.0
1.203	.725	74.3	82.8	44.9	65.6	1.2	172.1
1.261	.750	72.2	80.0	59.5	64.7	11.9	168.9
1.382	.800	66.5	69.5	89.6	65.4	30.4	162.3
1.507	.850	59.2	23.2	119.0	70.0	46.5	156.9
1.637	.900	48.7	-83.8	142.7	73.9	63.2	150.4
1.771	.950	19.2	-103.2	-10.4	105.5	79.2	139.4
1.909	1.000	-99.7	-113.7	-3.9	143.5	89.1	116.9
2.053	1.050	-141.8	-124.5	1.0	180.0	65.6	66.9
2.200	1.100	-163.2	-139.8	-1	160.3	-68.9	13.7
2.353	1.150	173.8	-161.8	-7.5	143.0	-71.9	-13.8
2.510	1.200	146.2	145.9	-4.4	118.3	-87.1	-37.8
2.671	1.250	113.0	90.4	31.2	61.6	-100.4	-71.3
2.837	1.300	69.3	54.9	105.1	7.2	-103.2	-122.1
3.000	1.400	-16.8	-28.9	168.5	42.1	-59.9	157.1
3.182	1.500	172.1	163.4	-3.3	152.4	128.6	-7.9
3.328	1.600	-16.8	-11.0	158.8	40.1	-48.1	158.4
4.746	1.800	148.2	129.7	-8.6	104.1	167.7	-63.6
5.637	2.000						

REC = 55

HEADING = 150. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 25. KNOTS

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
245	200	3.528E-01	1.311E-01	1.008E+00	1.858E-03	6.980E-03	3.955E-05
321	250	2.178E-01	1.563E-01	1.027E+00	6.551E-03	1.262E-02	1.813E-04
402	300	1.557E-01	1.395E-01	1.039E+00	2.485E-02	2.104E-02	8.341E-04
489	350	1.190E-01	1.228E-01	1.085E+00	8.878E-02	3.536E-02	2.515E-03
582	400	9.335E-02	9.879E-02	1.106E+00	3.188E-01	5.832E-02	5.937E-03
680	450	7.316E-02	6.578E-02	1.146E+00	7.797E-01	8.988E-02	9.130E-03
784	500	5.607E-02	3.949E-02	1.274E+00	6.234E-01	1.306E-01	6.720E-03
894	550	4.137E-02	2.799E-02	1.485E+00	4.006E-01	1.816E-01	5.511E-03
1009	600	2.907E-02	1.832E-02	1.804E+00	2.837E-01	2.367E-01	5.591E-03
1069	625	2.329E-02	1.455E-02	2.044E+00	2.285E-01	2.607E-01	5.420E-03
1130	650	1.810E-02	1.099E-02	2.254E+00	1.873E-01	2.729E-01	5.359E-03
1193	675	1.360E-02	8.156E-03	2.319E+00	1.559E-01	2.650E-01	5.363E-03
1257	700	9.906E-03	5.772E-03	2.099E+00	1.316E-01	2.343E-01	5.444E-03
1323	725	7.052E-03	3.799E-03	1.645E+00	1.127E-01	1.896E-01	5.500E-03
1389	750	4.823E-03	2.264E-03	1.095E+00	8.947E-02	1.420E-01	5.089E-03
1457	800	2.800E-03	5.758E-04	3.193E-01	4.914E-02	7.389E-02	3.846E-03
1521	850	6.596E-04	5.060E-05	5.456E-02	2.296E-02	3.409E-02	2.500E-03
1581	900	1.875E-04	4.843E-05	2.581E-03	8.329E-03	1.061E-02	1.822E-03
1647	950	2.539E-05	1.699E-04	7.137E-04	2.701E-03	2.103E-03	4.880E-04
1717	1000	7.953E-06	2.400E-04	2.195E-03	1.903E-03	1.243E-04	1.193E-04
1793	1050	1.884E-05	2.102E-04	1.859E-03	2.272E-03	7.224E-05	3.633E-05
1875	1100	2.360E-05	1.087E-04	1.083E-03	2.156E-03	1.272E-04	5.637E-05
1963	1150	2.223E-05	3.609E-05	5.532E-04	1.335E-03	1.163E-04	6.706E-05
2057	1200	1.542E-05	2.188E-05	2.305E-04	5.095E-04	1.469E-04	4.589E-05
2157	1250	8.416E-06	2.648E-05	9.054E-05	2.623E-04	1.942E-04	2.566E-05
2263	1300	3.534E-06	2.454E-05	3.800E-06	3.925E-04	1.843E-04	2.040E-05
2375	1350	4.798E-06	1.513E-05	7.061E-05	3.140E-04	1.477E-05	1.859E-05
2493	1400	9.002E-07	7.355E-06	8.335E-06	9.727E-05	2.438E-05	7.120E-06
2617	1450	5.503E-07	2.898E-06	3.951E-06	2.511E-05	1.374E-05	2.187E-06
2747	1500	2.366E-07	7.124E-07	1.955E-06	5.345E-06	2.578E-06	5.747E-07

PHASE (MOTION-HAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
245	.200	126.7	88.8	-.1	108.0	-68.4	-87.6
.245	.250	114.8	90.0	-.1	125.0	-66.8	-109.7
.402	.300	106.0	90.7	-.1	140.0	-65.4	-139.7
.493	.350	99.1	91.0	.0	151.0	-64.8	-162.3
.582	.400	93.5	93.2	.1	169.4	-62.9	-171.0
.680	.450	89.1	100.4	.5	-148.4	-59.1	-158.4
.784	.500	85.8	97.9	1.9	-103.8	-53.1	-147.6
.894	.550	82.8	91.8	5.1	-82.3	-44.7	-157.2
1.009	.600	80.5	87.8	12.5	-73.2	-33.2	-170.0
1.069	.625	79.8	87.7	19.5	-69.5	-25.1	-173.6
1.130	.650	79.1	87.3	29.3	-66.6	-15.7	-176.7
1.193	.675	78.0	86.3	41.9	-64.2	-5.1	-179.6
1.257	.700	76.3	84.5	56.8	-62.4	5.8	177.4
1.323	.725	74.1	81.3	72.5	-61.1	15.9	174.1
1.399	.750	71.5	78.9	89.1	-60.9	25.2	171.4
1.527	.800	65.4	72.7	119.5	-62.1	41.5	167.0
1.671	.850	57.2	46.8	145.0	-65.9	57.9	162.7
1.821	.900	41.3	-82.5	150.2	-79.8	72.6	155.6
1.976	.950	11.5	-103.5	15.4	-111.5	81.2	144.7
2.137	1.000	-75.5	-116.0	7.0	-158.5	69.6	120.5
2.303	1.050	-129.0	-127.7	5.3	170.7	-41.5	58.3
2.475	1.100	-158.0	-143.8	6.2	152.5	-59.8	5.1
2.653	1.150	173.4	-178.6	13.6	135.9	-82.5	-24.4
2.837	1.200	146.8	123.2	8.1	107.7	-101.8	-47.5
3.026	1.250	118.1	73.9	-14.4	50.5	-107.9	-86.5
3.221	1.300	71.7	46.2	-27.3	4.1	-103.4	-135.3
3.427	1.400	-9.3	-29.9	170.9	-48.1	-88.3	152.6
4.640	1.500	174.7	168.1	-4.5	146.0	118.5	-16.1
5.882	1.800	-36.6	-13.0	152.3	-41.0	-59.0	154.8
6.546	2.000	139.0	117.3	-1.8	109.6	176.1	-60.2

REC = 55

HEADING = 165. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/NAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	7.458E-01	5.840E-02	9.933E-01	4.377E-04	5.555E-03	1.837E-04
.266	.250	5.494E-01	5.516E-02	9.800E-01	1.256E-03	1.288E-02	4.863E-04
.323	.300	4.531E-01	5.984E-02	9.643E-01	3.433E-03	2.545E-02	1.130E-03
.381	.350	3.885E-01	5.951E-02	9.404E-01	9.436E-03	4.537E-02	2.377E-03
.441	.400	3.352E-01	5.217E-02	8.948E-01	2.535E-02	7.470E-02	4.045E-03
.501	.450	2.849E-01	4.242E-02	8.225E-01	6.802E-02	1.139E-01	6.084E-03
.563	.500	2.350E-01	3.282E-02	7.230E-01	1.949E-01	1.603E-01	8.751E-03
.627	.550	1.853E-01	2.470E-02	6.028E-01	6.805E-01	2.066E-01	1.349E-02
.691	.600	1.367E-01	1.389E-02	4.986E-01	2.816E+00	2.527E-01	2.262E-02
.724	.625	1.140E-01	3.878E-03	4.506E-01	3.203E+00	2.729E-01	1.649E-02
.757	.650	9.285E-02	8.212E-04	4.053E-01	2.006E+00	2.887E-01	7.530E-03
.791	.675	7.356E-02	5.623E-04	3.536E-01	1.145E+00	2.984E-01	4.108E-03
.824	.700	5.642E-02	5.049E-04	3.258E-01	7.006E-01	3.006E-01	3.081E-03
.858	.725	4.163E-02	2.403E-04	2.913E-01	4.578E-01	2.941E-01	2.715E-03
.893	.750	2.932E-02	4.826E-05	2.388E-01	3.121E-01	2.780E-01	2.474E-03
.962	.800	1.202E-02	1.736E-04	1.323E-01	1.539E-01	2.179E-01	1.861E-03
1.033	.850	3.155E-03	6.395E-04	1.229E-01	7.031E-02	1.375E-01	1.123E-03
1.105	.900	2.919E-04	9.649E-04	5.875E-02	3.394E-02	5.819E-02	5.258E-04
1.173	.950	1.562E-04	1.027E-03	3.962E-02	2.182E-02	9.130E-03	2.025E-04
1.254	1.000	4.546E-04	8.327E-04	6.248E-02	1.349E-02	6.553E-04	1.605E-04
1.330	1.050	4.665E-04	5.3349E-04	7.748E-02	1.553E-02	9.583E-03	2.850E-04
1.407	1.100	2.835E-04	2.611E-04	4.529E-02	9.542E-03	1.528E-02	3.363E-04
1.485	1.150	1.351E-04	1.503E-04	1.152E-02	3.980E-03	1.265E-02	2.695E-04
1.565	1.200	9.742E-05	1.226E-04	3.502E-04	1.422E-03	5.766E-03	1.610E-04
1.646	1.250	1.103E-04	9.917E-05	2.243E-03	1.267E-03	9.006E-04	9.346E-05
1.729	1.300	1.110E-04	6.743E-05	3.359E-03	1.411E-03	1.839E-04	7.044E-05
1.897	1.400	9.058E-05	3.363E-05	9.974E-05	2.288E-04	1.274E-03	2.940E-05
2.249	1.600	2.775E-05	9.319E-06	9.039E-06	2.333E-05	1.653E-04	4.451E-06
2.621	1.800	1.037E-05	2.093E-06	5.744E-05	1.923E-05	3.418E-05	2.067E-06
3.014	2.000	4.814E-06	4.928E-08	3.320E-06	3.282E-05	9.860E-06	2.367E-06

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	122.7	89.5	.1	101.3	-88.6	-174.9
.266	.250	111.0	89.5	.1	107.5	-86.3	-179.3
.323	.300	102.7	90.2	-.0	117.5	-84.2	-173.9
.391	.350	96.3	90.2	-.2	126.7	-82.1	-176.3
.441	.400	91.1	90.1	-.4	133.4	-79.8	177.7
.501	.450	86.5	90.6	-.7	138.9	-76.8	171.7
.563	.500	82.3	92.9	-1.3	145.0	-73.2	166.6
.627	.550	78.4	100.2	-2.5	156.1	-68.7	164.6
.691	.600	73.1	127.0	-4.6	163.5	-63.7	-174.9
.724	.625	73.6	142.0	-5.9	167.4	-60.8	-155.1
.737	.650	72.1	116.6	-7.6	170.8	-57.6	-150.2
.791	.675	70.7	87.9	-9.5	173.3	-54.1	-160.6
.824	.700	68.3	80.3	-11.5	181.0	-50.3	-174.6
.853	.725	68.0	80.5	-13.5	178.8	-46.1	173.4
.893	.750	66.9	93.8	-15.4	179.3	-41.4	163.5
.962	.800	65.3	-134.5	-18.3	186.9	-30.9	146.5
1.033	.850	66.4	-130.8	-20.5	199.8	-17.6	132.8
1.105	.900	83.1	-131.7	-29.1	119.9	-.9	116.3
1.179	.950	-171.6	-136.1	-60.3	145.7	17.4	83.4
1.254	1.000	-161.6	-145.0	-73.3	158.6	-144.1	28.8
1.330	1.050	-172.2	-161.8	-64.6	173.6	-130.4	-9.4
1.407	1.100	167.1	171.0	-50.3	156.5	-117.1	-32.5
1.485	1.150	129.6	132.4	-39.0	134.2	-103.9	-53.0
1.565	1.200	77.2	94.4	-71.2	92.2	-89.8	-78.8
1.646	1.250	31.9	61.8	-167.9	40.4	-69.3	-115.2
1.729	1.300	-5.3	26.9	-163.7	10.7	76.6	-156.0
1.897	1.400	-87.7	-53.2	-153.8	-51.5	125.5	127.8
2.249	1.600	91.0	117.1	18.0	93.9	-46.3	-67.3
2.621	1.800	-123.5	-99.8	114.7	-143.2	127.0	47.2
3.014	2.000	15.7	-129.3	-141.2	5.0	-8.1	-178.5

REC = 57

HEADING = 155. DEG
SHIP SPEED = 10. KNOTS
RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.220	.200	6.134E-01	5.121E-02	9.918E-01	4.627E-04	6.223E-03	9.919E-05
.282	.250	4.388E-01	4.762E-02	9.811E-01	1.390E-03	1.384E-02	3.190E-04
.346	.300	3.452E-01	5.407E-02	9.775E-01	4.201E-03	2.617E-02	8.156E-04
.412	.350	2.851E-01	5.080E-02	9.627E-01	1.251E-02	4.599E-02	1.779E-03
.481	.400	2.375E-01	4.289E-02	9.280E-01	3.683E-02	7.900E-02	3.113E-03
.553	.450	1.954E-01	3.403E-02	8.693E-01	1.164E-01	1.156E-01	4.993E-03
.627	.500	1.502E-01	2.582E-02	7.870E-01	4.538E-01	1.625E-01	8.494E-03
.703	.550	1.193E-01	1.198E-02	7.277E-01	1.469E+00	2.173E-01	1.184E-02
.783	.600	8.483E-02	3.685E-03	6.844E-01	8.141E-01	2.742E-01	4.290E-03
.823	.625	6.957E-02	3.102E-03	6.692E-01	5.288E-01	2.995E-01	3.108E-03
.864	.650	5.955E-02	2.383E-03	6.577E-01	3.664E-01	3.201E-01	2.718E-03
.906	.675	4.323E-02	1.591E-03	6.471E-01	2.673E-01	3.324E-01	2.555E-03
.949	.700	3.241E-02	8.976E-04	6.318E-01	2.011E-01	3.367E-01	2.441E-03
.992	.725	2.326E-02	3.805E-04	6.055E-01	1.527E-01	3.282E-01	2.270E-03
1.035	.750	1.555E-02	1.345E-04	5.830E-01	1.081E-01	3.136E-01	2.033E-03
1.125	.800	5.479E-03	1.549E-05	4.423E-01	5.291E-02	2.379E-01	1.500E-03
1.215	.850	1.176E-03	2.145E-04	1.817E-01	2.494E-02	1.232E-01	9.570E-04
1.311	.900	6.998E-05	4.972E-04	2.285E-02	1.240E-02	3.938E-02	5.102E-04
1.408	.950	7.722E-05	5.603E-04	1.686E-02	7.329E-03	5.867E-03	1.952E-04
1.507	1.000	2.279E-04	4.175E-04	3.575E-02	6.036E-03	4.283E-04	1.059E-04
1.609	1.050	2.303E-04	2.359E-04	2.772E-02	4.479E-03	3.527E-03	1.338E-04
1.714	1.100	1.376E-04	1.071E-04	1.104E-02	2.894E-03	5.297E-03	1.475E-04
1.821	1.150	6.872E-05	5.125E-05	2.002E-03	1.015E-03	3.667E-03	1.039E-04
1.930	1.200	5.299E-05	3.795E-05	2.822E-04	2.558E-04	1.343E-03	5.122E-05
2.043	1.250	4.931E-05	2.857E-05	5.233E-04	3.266E-04	1.240E-04	2.558E-05
2.157	1.300	4.026E-05	1.725E-05	4.871E-04	4.135E-04	5.278E-05	1.937E-05
2.294	1.400	3.082E-05	9.425E-06	1.355E-04	5.779E-05	1.203E-04	7.191E-06
2.898	1.600	1.104E-05	5.151E-06	3.385E-05	2.194E-05	2.710E-05	1.916E-06
3.443	1.800	3.129E-06	1.564E-06	1.962E-05	9.666E-06	3.561E-05	1.294E-06
4.028	2.000	2.007E-06	1.406E-07	3.479E-06	1.010E-05	1.412E-05	7.528E-07

PHASE (NOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.203	122.9	89.3	.1	102.9	-84.0	-166.6
.282	.250	111.1	89.2	.1	109.6	-82.2	-174.2
.346	.300	102.8	90.2	-.1	122.9	-79.8	-166.4
.412	.350	96.4	90.1	-.4	131.7	-77.7	-173.2
.481	.400	91.1	90.2	-.6	138.7	-75.2	179.0
.553	.450	86.5	91.6	-1.1	146.9	-71.8	172.7
.627	.500	82.4	97.6	-1.9	153.3	-67.3	171.5
.703	.550	79.1	115.8	-3.0	-144.9	-62.0	-163.2
.783	.600	76.1	94.6	-4.3	-93.0	-55.3	-153.6
.823	.625	74.7	86.5	-4.8	-82.1	-51.3	-163.7
.864	.650	73.4	82.5	-4.9	-76.4	-46.8	-174.5
.906	.675	72.2	80.3	-4.3	-73.8	-41.8	176.1
.949	.701	71.1	79.3	-2.9	-73.4	-36.3	167.8
.992	.725	70.1	80.5	-.4	-74.7	-30.0	160.4
1.035	.750	69.5	85.8	4.0	-74.8	-22.2	156.2
1.125	.800	68.3	-146.2	18.9	-78.7	-3.3	148.2
1.215	.850	67.1	-118.4	33.0	-88.7	18.2	137.9
1.311	.900	79.1	-119.1	37.5	-107.9	38.4	120.9
1.403	.950	-155.7	-125.9	-35.3	-138.2	62.6	92.2
1.507	1.000	-155.8	-135.9	-34.7	-166.2	-179.6	43.7
1.609	1.050	-168.6	-150.8	-21.9	175.1	-119.1	4.3
1.714	1.100	169.4	-175.9	-11.5	160.2	-99.0	-18.9
1.821	1.150	129.2	143.1	-14.7	138.4	-82.1	-40.6
1.930	1.200	80.9	100.5	-75.4	85.9	-70.1	-68.8
2.043	1.250	39.5	65.2	-122.3	23.2	-62.6	-111.2
2.157	1.300	-3.5	24.4	-140.5	-3.4	153.4	-157.1
2.294	1.400	-78.7	-66.1	149.9	-83.7	119.5	115.7
2.893	1.600	98.6	101.7	17.8	66.0	-92.9	-90.4
3.443	1.800	-124.3	-112.0	-144.3	-149.8	102.0	40.8
4.028	2.000	3.6	.2	-156.0	-8.4	-20.1	170.1

REC = 58

HEADING = 165. DEG
RAO

SHIP SPEED = 15. KNOTS
(MOTION/WAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.230	5.189E-01	4.428E-02	9.925E-01	4.848E-04	6.913E-03	4.632E-05
.298	.298	3.513E-01	4.334E-02	9.894E-01	1.555E-03	1.452E-02	1.799E-04
.363	.363	2.678E-01	4.748E-02	9.974E-01	5.194E-03	2.642E-02	5.674E-04
.443	.443	2.142E-01	4.279E-02	9.945E-01	1.675E-02	4.586E-02	1.336E-03
.522	.400	1.733E-01	3.515E-02	9.751E-01	5.485E-02	7.533E-02	2.513E-03
.604	.450	1.388E-01	2.720E-02	9.360E-01	2.072E-01	1.152E-01	4.555E-03
.690	.500	1.075E-01	1.595E-02	9.133E-01	6.598E-01	1.645E-01	6.837E-03
.780	.550	7.960E-02	6.705E-03	9.341E-01	4.722E-01	2.240E-01	3.483E-03
.874	.600	5.523E-02	4.439E-03	9.925E-01	2.424E-01	2.856E-01	2.347E-03
.922	.625	4.453E-02	3.342E-03	1.033E+00	1.863E-01	3.121E-01	2.243E-03
.971	.650	3.494E-02	2.301E-03	1.069E+00	1.455E-01	3.316E-01	2.187E-03
1.022	.675	2.623E-02	1.502E-03	1.120E+00	1.135E-01	3.453E-01	2.077E-03
1.073	.700	1.872E-02	9.191E-04	1.153E+00	8.541E-02	3.467E-01	1.944E-03
1.125	.725	1.264E-02	4.917E-04	1.137E+00	6.418E-02	3.263E-01	1.801E-03
1.178	.750	8.021E-03	2.072E-04	9.983E-01	4.809E-02	2.813E-01	1.645E-03
1.237	.800	2.644E-03	4.606E-07	4.852E-01	2.645E-02	1.542E-01	1.297E-03
1.400	.850	5.462E-04	1.097E-04	8.575E-02	1.222E-02	6.004E-02	8.035E-04
1.515	.900	1.830E-05	2.341E-04	8.457E-04	4.685E-03	1.694E-02	3.530E-04
1.637	.950	4.500E-05	2.640E-04	1.015E-02	2.483E-03	2.401E-03	1.195E-04
1.761	1.000	1.104E-04	1.372E-04	1.367E-02	2.261E-03	3.358E-04	5.114E-05
1.883	1.050	9.959E-05	1.014E-04	7.937E-03	1.910E-03	1.497E-03	5.816E-05
2.020	1.100	6.450E-05	3.882E-05	2.912E-03	1.038E-03	1.843E-03	5.938E-05
2.156	1.150	4.063E-05	1.600E-05	6.47E-04	3.131E-04	1.024E-03	3.902E-05
2.295	1.200	2.459E-05	1.126E-05	1.498E-04	1.163E-04	3.626E-04	1.769E-05
2.439	1.250	1.872E-05	1.005E-05	7.353E-05	2.083E-04	1.363E-04	9.371E-06
2.586	1.300	2.122E-05	7.731E-06	2.109E-04	2.265E-04	3.655E-05	8.936E-06
2.891	1.400	1.108E-05	6.515E-06	1.864E-04	5.005E-05	7.556E-05	4.467E-06
3.547	1.600	2.581E-06	3.302E-06	2.391E-05	2.180E-05	4.088E-05	1.785E-06
4.264	1.800	1.125E-06	6.115E-07	3.966E-06	8.511E-06	2.695E-05	8.153E-07
5.342	2.000	8.461E-07	2.600E-07	6.992E-07	1.265E-06	8.606E-06	1.749E-07

PHASE (MOTION-AVERT)

WE	W	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.230	.200	123.0	89.1	.1	105.0	-79.6	-155.0
.293	.250	111.3	89.5	.0	114.9	-77.7	-161.3
.363	.300	103.0	90.3	-.2	129.3	-75.2	-159.2
.443	.350	96.5	90.2	-.4	138.0	-73.3	-170.5
.522	.400	91.2	90.8	-.1	147.0	-70.6	-179.6
.604	.450	86.6	94.3	-1.1	163.4	-66.7	176.8
.691	.500	83.0	106.5	-1.6	-150.7	-61.6	-164.7
.780	.550	79.9	97.2	-1.9	-98.6	-54.8	-152.1
.874	.600	77.2	86.9	-.6	-78.2	-46.0	-167.7
.922	.625	76.0	84.1	1.1	-74.1	-40.7	-176.2
.971	.650	74.9	81.9	4.0	-72.4	-34.7	175.9
1.022	.675	74.0	81.5	8.7	-70.7	-27.3	170.6
1.073	.700	73.4	81.5	16.0	-69.2	-18.3	167.0
1.125	.725	72.5	81.2	26.0	-68.5	-8.9	163.6
1.178	.750	71.2	80.1	38.4	-68.7	3.2	160.1
1.237	.800	66.7	-9.0	66.8	-72.0	25.1	151.9
1.400	.850	61.1	-103.4	93.3	-82.2	44.2	142.1
1.515	.900	59.7	-111.1	78.2	-104.2	64.2	129.6
1.637	.950	-142.6	-118.0	-26.0	-138.7	95.4	105.3
1.761	1.000	-152.9	-128.5	-12.8	-169.8	-145.8	95.7
1.889	1.050	-171.7	-144.8	-4.5	170.4	-92.0	10.5
2.020	1.100	159.9	-171.4	-4.2	154.9	-75.3	-14.5
2.156	1.150	127.6	144.1	-20.5	127.0	-71.7	-38.7
2.296	1.200	88.5	93.2	-66.8	59.2	-82.4	-71.8
2.439	1.250	41.2	51.0	-137.7	7.9	-107.9	-122.2
2.586	1.300	1.0	10.5	161.9	-18.1	-126.5	-170.6
2.891	1.400	-66.2	-80.3	151.8	-106.5	81.0	99.4
3.547	1.600	92.8	95.9	12.2	63.4	-98.9	-100.6
4.264	1.800	-134.2	-107.3	-140.2	-137.3	100.7	45.1
5.042	2.000	-4.4	-.3	115.6	-3.9	-68.8	158.5

REC = 59

HEADING = 165. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.241	.200	4.375E-01	3.852E-02	9.984E-01	5.077E-04	7.518E-03	1.970E-05
.313	.250	2.856E-01	3.933E-02	1.005E+00	1.759E-03	1.480E-02	9.794E-05
.391	.300	2.110E-01	4.095E-02	1.025E+00	6.475E-03	2.609E-02	3.951E-04
.474	.350	1.642E-01	3.593E-02	1.036E+00	2.285E-02	4.485E-02	1.027E-03
.562	.400	1.296E-01	2.918E-02	1.035E+00	8.774E-02	7.375E-02	2.177E-03
.655	.450	1.013E-01	2.131E-02	1.029E+00	3.935E-01	1.128E-01	4.515E-03
.754	.500	7.652E-02	8.792E-03	1.095E+00	4.647E-01	1.630E-01	3.166E-03
.857	.550	5.525E-02	6.095E-03	1.222E+00	2.191E-01	2.231E-01	1.758E-03
.965	.600	3.724E-02	3.903E-03	1.409E+00	1.312E-01	2.827E-01	1.676E-03
1.021	.625	2.923E-02	2.891E-03	1.539E+00	1.024E-01	3.082E-01	1.653E-03
1.079	.650	2.201E-02	2.076E-03	1.690E+00	7.851E-02	3.247E-01	1.612E-03
1.137	.675	1.586E-02	1.407E-03	1.764E+00	6.109E-02	3.209E-01	1.572E-03
1.197	.700	1.090E-02	8.784E-04	1.662E+00	4.799E-02	2.898E-01	1.528E-03
1.258	.725	7.171E-03	4.812E-04	1.348E+00	3.796E-02	2.356E-01	1.476E-03
1.321	.750	4.541E-03	2.083E-04	9.218E-01	3.019E-02	1.749E-01	1.414E-03
1.449	.800	1.453E-03	7.781E-05	2.429E-01	1.475E-02	7.879E-02	9.768E-04
1.583	.850	2.812E-04	3.996E-05	2.405E-02	5.755E-03	2.989E-02	5.435E-04
1.722	.900	9.348E-06	1.096E-04	2.392E-04	1.945E-03	7.564E-03	2.301E-04
1.865	.950	1.608E-05	1.287E-04	5.003E-03	1.100E-03	5.416E-04	6.161E-05
2.014	1.000	4.335E-05	9.172E-05	5.213E-03	1.123E-03	1.538E-04	2.126E-05
2.168	1.050	5.027E-05	4.964E-05	2.752E-03	9.480E-04	6.042E-04	2.708E-05
2.327	1.100	3.916E-05	1.702E-05	9.926E-04	5.013E-04	5.344E-04	2.857E-05
2.492	1.150	2.483E-05	6.641E-06	2.527E-04	1.612E-04	3.298E-04	1.813E-05
2.661	1.200	1.516E-05	8.688E-06	2.460E-05	9.069E-05	2.436E-04	8.376E-06
2.835	1.250	1.147E-05	8.015E-06	3.695E-05	1.645E-04	1.581E-04	6.544E-06
3.014	1.300	1.283E-05	5.843E-06	8.312E-05	1.625E-04	5.141E-05	7.124E-06
3.388	1.400	6.039E-06	5.275E-06	8.388E-05	4.388E-05	6.119E-05	3.716E-06
4.196	1.600	1.145E-06	2.731E-06	1.923E-05	1.753E-05	2.725E-05	1.511E-06
5.086	1.800	4.540E-07	3.730E-07	5.946E-06	7.641E-06	1.444E-05	4.551E-07
-6.056	2.000	4.801E-07	1.462E-07	7.573E-07	1.059E-06	6.626E-05	1.402E-07

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.241	.200	123.1	89.9	.0	107.4	-74.5	-129.7
.313	.250	111.5	89.8	-.1	121.1	-72.6	-139.8
.391	.300	103.2	90.4	-.3	134.6	-70.6	-152.2
.474	.350	96.6	90.5	-.4	143.0	-68.9	-168.5
.552	.400	91.3	91.9	-.5	154.6	-66.2	-178.2
.655	.450	86.9	100.8	-.6	172.9	-61.9	-171.7
.754	.500	83.6	102.3	-.2	108.0	-55.8	-144.6
.857	.550	80.8	89.8	1.6	-78.0	-47.5	-156.3
.965	.600	78.3	84.0	6.8	-68.6	-36.4	-174.4
1.021	.625	77.5	83.1	11.8	-65.9	-29.1	179.7
1.073	.650	76.8	83.0	19.6	-63.4	-20.1	175.9
1.137	.675	76.0	82.3	30.5	-61.5	-9.6	172.6
1.197	.700	74.7	80.8	44.2	-50.4	1.9	159.4
1.258	.725	72.7	77.6	59.7	-59.9	13.3	166.1
1.321	.750	70.1	71.0	75.5	-60.2	23.7	162.1
1.449	.800	63.9	31.9	107.7	-64.6	42.5	156.0
1.583	.850	55.9	-91.1	135.9	-74.9	60.6	149.2
1.722	.900	36.0	-103.6	-34.2	-98.9	80.8	138.3
1.855	.950	-129.1	-114.7	-7.4	-142.9	101.3	113.6
2.014	1.000	-151.6	-126.1	.6	-174.8	-86.1	58.5
2.168	1.050	-170.8	-143.1	1.7	164.7	-72.1	7.5
2.327	1.100	165.3	-168.8	-5.5	144.8	-70.5	-19.6
2.492	1.150	133.9	132.5	-7.2	111.4	-82.5	-45.9
2.661	1.200	92.8	79.3	44.1	43.6	-97.1	-86.5
2.835	1.250	43.4	41.9	139.7	.6	-101.6	-141.5
3.014	1.300	-2.3	-4.2	169.1	-23.2	-93.1	176.3
3.203	1.400	-61.9	-93.8	171.1	-108.9	71.8	88.0
4.195	1.600	96.7	91.8	10.2	71.9	-105.3	-95.3
5.086	1.800	-133.6	-120.0	-167.9	-123.7	73.4	51.7
6.056	2.000	-6.1	.3	127.0	-10.2	-60.7	159.7

REC = 60

HEADING = 165. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.251	.200	3.716E-01	3.320E-02	1.009E+00	5.258E-04	8.000E-03	1.297E-05
.329	.250	2.346E-01	3.507E-02	1.028E+00	1.989E-03	1.467E-02	6.788E-05
.414	.300	1.686E-01	3.496E-02	1.059E+00	8.068E-03	2.511E-02	2.851E-04
.505	.350	1.281E-01	3.012E-02	1.085E+00	3.143E-02	4.296E-02	8.305E-04
.603	.400	9.899E-02	2.408E-02	1.101E+00	1.407E-01	7.111E-02	2.056E-03
.707	.450	7.551E-02	1.343E-02	1.163E+00	3.858E-01	1.086E-01	3.014E-03
.817	.500	5.587E-02	7.559E-03	1.317E+00	2.078E-01	1.572E-01	1.498E-03
.934	.550	3.944E-02	5.467E-03	1.567E+00	1.167E-01	2.151E-01	1.279E-03
1.056	.600	2.538E-02	3.362E-03	1.965E+00	7.268E-02	2.708E-01	1.235E-03
1.120	.625	1.930E-02	2.525E-03	2.187E+00	5.725E-02	2.854E-01	1.203E-03
1.185	.650	1.411E-02	1.820E-03	2.260E+00	4.603E-02	2.782E-01	1.233E-03
1.253	.675	9.929E-03	1.236E-03	2.050E+00	3.767E-02	2.449E-01	1.309E-03
1.321	.700	6.779E-03	7.846E-04	1.575E+00	3.135E-02	2.950E-01	1.329E-03
1.391	.725	4.408E-03	4.144E-04	1.010E+00	2.400E-02	1.426E-01	1.215E-03
1.463	.750	2.729E-03	1.946E-04	5.475E-01	1.731E-02	1.005E-01	1.044E-03
1.611	.800	8.521E-04	1.632E-05	1.013E-01	7.922E-03	4.585E-02	6.931E-04
1.766	.850	1.760E-04	1.403E-05	6.085E-03	2.338E-03	1.507E-02	3.622E-04
1.927	.900	1.478E-05	5.111E-05	5.503E-04	8.837E-04	2.800E-03	1.311E-04
2.094	.950	8.179E-06	6.684E-05	2.633E-03	5.857E-04	1.119E-04	2.971E-05
2.268	1.000	2.762E-05	5.870E-05	2.215E-03	6.672E-04	1.031E-04	9.566E-06
2.443	1.050	3.191E-05	2.788E-05	1.171E-03	5.757E-04	2.095E-04	1.537E-05
2.634	1.100	2.615E-05	8.434E-06	5.289E-04	3.179E-04	1.724E-04	1.737E-05
2.827	1.150	1.676E-05	6.339E-06	1.773E-04	1.076E-04	1.740E-04	1.069E-05
3.026	1.200	7.973E-06	7.546E-06	4.539E-05	8.582E-05	1.908E-04	5.079E-06
3.231	1.250	5.476E-06	6.127E-06	2.624E-05	1.339E-04	1.439E-04	5.848E-06
3.443	1.300	7.243E-06	4.008E-06	6.191E-05	1.253E-04	4.406E-05	5.895E-06
3.664	1.400	2.751E-06	4.023E-06	4.682E-05	4.184E-05	4.407E-05	3.227E-06
4.845	1.600	5.392E-07	1.689E-06	1.428E-05	1.815E-05	1.571E-05	1.448E-06
5.907	1.800	2.224E-07	2.238E-07	4.685E-06	6.067E-06	1.273E-05	4.316E-07
7.071	2.000	3.839E-07	1.088E-07	6.850E-07	9.658E-07	4.463E-06	1.031E-07

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.251	.200	123.3	88.8	-1	109.8	-69.2	-94.3
.329	.250	111.7	90.1	-1	127.6	-67.3	-113.8
.414	.300	103.3	90.6	-1	140.5	-66.0	-145.4
.505	.350	96.7	91.0	.0	149.8	-64.9	-166.4
.603	.400	91.4	94.3	.1	168.6	-62.3	-173.9
.707	.450	87.4	105.5	.7	-134.1	-57.4	-149.4
.817	.500	84.3	94.9	2.4	-86.5	-50.3	-144.2
.934	.550	81.6	87.9	7.0	-70.1	-40.4	-162.0
1.056	.600	79.8	85.7	18.0	-63.0	-25.9	-174.8
1.120	.625	79.1	85.5	27.9	-60.2	-16.1	-178.4
1.185	.650	78.2	84.6	41.0	-58.0	-5.0	178.4
1.253	.675	76.6	82.6	56.7	-56.3	6.6	175.2
1.321	.700	74.5	79.1	73.4	-55.4	17.5	171.6
1.391	.725	71.9	76.2	91.1	-55.5	27.6	168.8
1.463	.750	69.0	73.0	108.1	-56.4	36.7	166.4
1.611	.800	61.9	50.9	137.7	-60.4	54.4	161.8
1.765	.850	49.4	-81.1	157.0	-72.5	72.3	155.3
1.927	.900	17.9	-103.6	6.7	-104.4	83.6	143.9
2.094	.950	-103.0	-115.9	5.0	-152.2	96.1	118.4
2.268	1.000	-141.6	-123.1	6.2	176.1	-58.3	50.1
2.448	1.050	-166.4	-148.3	6.3	156.2	-63.2	-7
2.634	1.100	165.4	172.8	13.8	137.0	-78.5	-27.3
2.827	1.150	134.9	110.3	11.4	99.9	-95.8	-56.9
3.026	1.200	96.4	68.4	-18.4	35.0	-103.2	-103.5
3.231	1.250	41.0	33.2	-149.9	-2.2	-99.3	-153.5
3.443	1.300	.1	-10.6	171.0	-28.4	-82.3	167.4
3.664	1.400	-63.2	-90.2	178.3	-112.3	74.9	87.7
3.884	1.500	104.0	90.0	6.8	71.8	-126.3	-96.6
4.107	1.600	-143.2	-123.1	-154.4	-123.6	77.9	52.8
4.337	1.700	-8.8	-5.0	166.3	-13.7	-42.8	160.5

REC = 61 HEADING = 180. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	7.756E-01 0.	9.926E-01 0.	9.926E-01 0.	5.921E-03 0.	5.921E-03 0.	5.921E-03 0.
.266	.250	5.769E-01 0.	9.783E-01 0.	9.783E-01 0.	1.374E-02 0.	1.374E-02 0.	1.374E-02 0.
.324	.300	4.773E-01 0.	9.610E-01 0.	9.610E-01 0.	2.715E-02 0.	2.715E-02 0.	2.715E-02 0.
.382	.350	4.090E-01 0.	9.341E-01 0.	9.341E-01 0.	4.836E-02 0.	4.836E-02 0.	4.836E-02 0.
.442	.400	3.514E-01 0.	8.845E-01 0.	8.845E-01 0.	7.941E-02 0.	7.941E-02 0.	7.941E-02 0.
.503	.450	2.966E-01 0.	8.069E-01 0.	8.069E-01 0.	1.205E-01 0.	1.205E-01 0.	1.205E-01 0.
.566	.500	2.420E-01 0.	7.020E-01 0.	7.020E-01 0.	1.684E-01 0.	1.684E-01 0.	1.684E-01 0.
.629	.550	1.860E-01 0.	5.775E-01 0.	5.775E-01 0.	2.145E-01 0.	2.145E-01 0.	2.145E-01 0.
.695	.600	1.357E-01 0.	4.713E-01 0.	4.713E-01 0.	2.594E-01 0.	2.594E-01 0.	2.594E-01 0.
.728	.625	1.117E-01 0.	4.223E-01 0.	4.223E-01 0.	2.777E-01 0.	2.777E-01 0.	2.777E-01 0.
.761	.650	8.947E-02 0.	3.765E-01 0.	3.765E-01 0.	2.907E-01 0.	2.907E-01 0.	2.907E-01 0.
.795	.675	6.952E-02 0.	3.347E-01 0.	3.347E-01 0.	2.969E-01 0.	2.969E-01 0.	2.969E-01 0.
.829	.700	5.209E-02 0.	2.970E-01 0.	2.970E-01 0.	2.948E-01 0.	2.948E-01 0.	2.948E-01 0.
.863	.725	3.734E-02 0.	2.627E-01 0.	2.627E-01 0.	2.834E-01 0.	2.834E-01 0.	2.834E-01 0.
.898	.750	2.537E-02 0.	2.302E-01 0.	2.302E-01 0.	2.622E-01 0.	2.622E-01 0.	2.622E-01 0.
.963	.800	9.338E-03 0.	1.638E-01 0.	1.638E-01 0.	1.935E-01 0.	1.935E-01 0.	1.935E-01 0.
1.040	.850	1.952E-03 0.	9.790E-02 0.	9.790E-02 0.	1.108E-01 0.	1.108E-01 0.	1.108E-01 0.
1.113	.900	1.182E-04 0.	4.603E-02 0.	4.603E-02 0.	3.779E-02 0.	3.779E-02 0.	3.779E-02 0.
1.187	.950	3.167E-04 0.	4.728E-02 0.	4.728E-02 0.	2.388E-03 0.	2.388E-03 0.	2.388E-03 0.
1.263	1.000	5.552E-04 0.	8.024E-02 0.	8.024E-02 0.	3.800E-03 0.	3.800E-03 0.	3.800E-03 0.
1.333	1.050	4.493E-04 0.	7.383E-02 0.	7.383E-02 0.	1.409E-02 0.	1.409E-02 0.	1.409E-02 0.
1.413	1.100	2.336E-04 0.	3.339E-02 0.	3.339E-02 0.	1.660E-02 0.	1.660E-02 0.	1.660E-02 0.
1.497	1.150	1.209E-04 0.	5.099E-03 0.	5.099E-03 0.	1.086E-02 0.	1.086E-02 0.	1.086E-02 0.
1.578	1.200	1.152E-04 0.	5.662E-04 0.	5.662E-04 0.	3.475E-03 0.	3.475E-03 0.	3.475E-03 0.
1.660	1.250	1.301E-04 0.	3.647E-03 0.	3.647E-03 0.	1.657E-04 0.	1.657E-04 0.	1.657E-04 0.
1.744	1.300	1.185E-04 0.	3.072E-03 0.	3.072E-03 0.	7.159E-04 0.	7.159E-04 0.	7.159E-04 0.
1.914	1.400	9.349E-05 0.	7.513E-06 0.	7.513E-06 0.	1.010E-03 0.	1.010E-03 0.	1.010E-03 0.
2.272	1.600	2.967E-05 0.	1.342E-05 0.	1.342E-05 0.	1.083E-04 0.	1.083E-04 0.	1.083E-04 0.
2.690	1.800	1.057E-05 0.	7.162E-05 0.	7.162E-05 0.	2.134E-05 0.	2.134E-05 0.	2.134E-05 0.
3.050	2.000	3.003E-06 0.	9.184E-06 0.	9.184E-06 0.	4.482E-06 0.	4.482E-06 0.	4.482E-06 0.

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SHAY	HEAVE	ROLL	PITCH	YAH
211	200	121.7	0.0	1	0.0	-88.5	0.0
216	250	110.1	0.0	1	0.0	-86.2	0.0
324	300	101.9	0.0	-0	0.0	-84.0	0.0
330	350	95.6	0.0	-2	0.0	-81.9	0.0
442	400	90.4	0.0	-4	0.0	-79.5	0.0
503	450	85.9	0.0	-8	0.0	-76.4	0.0
556	500	81.8	0.0	-1.4	0.0	-72.6	0.0
623	550	77.9	0.0	-2.8	0.0	-68.1	0.0
695	600	74.7	0.0	-5.0	0.0	-62.9	0.0
723	625	73.1	0.0	-6.6	0.0	-59.8	0.0
761	650	71.7	0.0	-8.4	0.0	-56.5	0.0
793	675	70.3	0.0	-10.5	0.0	-52.9	0.0
823	700	69.0	0.0	-12.7	0.0	-48.9	0.0
853	725	67.8	0.0	-14.9	0.0	-44.5	0.0
883	750	66.8	0.0	-17.0	0.0	-39.7	0.0
913	800	65.8	0.0	-20.5	0.0	-28.8	0.0
943	850	64.5	0.0	-24.5	0.0	-14.7	0.0
973	900	113.3	0.0	-39.8	0.0	2.8	0.0
1003	950	-164.3	0.0	-71.5	0.0	22.3	0.0
1033	1000	-164.8	0.0	-75.0	0.0	-141.6	0.0
1063	1050	-179.1	0.0	-63.2	0.0	-126.8	0.0
1093	1100	154.2	0.0	-48.2	0.0	-112.9	0.0
1123	1150	107.8	0.0	-40.3	0.0	-99.0	0.0
1153	1200	55.9	0.0	-152.5	0.0	-83.2	0.0
1183	1250	14.7	0.0	-169.1	0.0	-39.7	0.0
1213	1300	-22.9	0.0	-162.0	0.0	97.1	0.0
1243	1350	-106.2	0.0	62.0	0.0	133.0	0.0
1273	1400	66.3	0.0	-94.0	0.0	-45.3	0.0
1303	1450	-154.9	0.0	95.8	0.0	117.0	0.0
1333	1500	-23.2	0.0	-124.6	0.0	78.6	0.0

REC = 52 HEADING = 180. DEG SHIP SPEED = 10. KNOTS

RAO (NOTION/HAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	6.402E-01 0.		9.912E-01 0.		6.603E-03 0.	
.253	.250	4.552E-01 0.		9.796E-01 0.		1.471E-02 0.	
.347	.300	3.666E-01 0.		9.748E-01 0.		2.787E-02 0.	
.414	.350	2.974E-01 0.		9.574E-01 0.		4.900E-02 0.	
.484	.400	2.465E-01 0.		9.190E-01 0.		8.042E-02 0.	
.556	.450	2.012E-01 0.		8.557E-01 0.		1.224E-01 0.	
.631	.500	1.690E-01 0.		7.687E-01 0.		1.738E-01 0.	
.709	.550	1.490E-01 0.		7.082E-01 0.		2.270E-01 0.	
.789	.600	8.308E-02 0.		6.622E-01 0.		2.831E-01 0.	
.830	.625	6.717E-02 0.		6.457E-01 0.		3.068E-01 0.	
.872	.650	5.283E-02 0.		6.323E-01 0.		3.247E-01 0.	
.914	.675	4.020E-02 0.		6.185E-01 0.		3.340E-01 0.	
.957	.700	2.940E-02 0.		5.979E-01 0.		3.222E-01 0.	
1.001	.725	2.038E-02 0.		5.688E-01 0.		3.195E-01 0.	
1.045	.750	1.308E-02 0.		5.365E-01 0.		2.984E-01 0.	
1.136	.800	4.098E-03 0.		3.710E-01 0.		2.110E-01 0.	
1.229	.850	5.696E-04 0.		1.223E-01 0.		9.738E-02 0.	
1.325	.900	2.143E-05 0.		1.188E-02 0.		2.591E-02 0.	
1.424	.950	1.583E-04 0.		2.635E-02 0.		2.256E-03 0.	
1.525	1.000	2.731E-04 0.		3.831E-02 0.		1.504E-03 0.	
1.629	1.050	2.135E-04 0.		2.354E-02 0.		4.946E-03 0.	
1.735	1.100	1.120E-04 0.		7.064E-03 0.		5.405E-03 0.	
1.844	1.150	6.174E-05 0.		7.971E-04 0.		2.936E-03 0.	
1.956	1.200	5.649E-05 0.		3.858E-04 0.		7.156E-04 0.	
2.071	1.250	5.022E-05 0.		7.218E-04 0.		3.806E-04 0.	
2.187	1.300	4.439E-05 0.		3.970E-04 0.		1.476E-04 0.	
2.309	1.400	2.588E-05 0.		1.254E-04 0.		1.129E-04 0.	
2.444	1.600	8.794E-06 0.		1.141E-05 0.		5.105E-05 0.	
3.501	1.800	4.034E-06 0.		2.104E-06 0.		3.297E-05 0.	
4.101	2.000	1.445E-06 0.		7.245E-06 0.		6.019E-06 0.	

PHASE (MOTION-WAVEHT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	121.8	0.0	.2	0.0	-84.0	0.0
.283	.250	110.2	0.0	.1	0.0	-82.1	0.0
.345	.300	102.0	0.0	-.1	0.0	-79.7	0.0
.414	.350	95.7	0.0	-.4	0.0	-77.6	0.0
.484	.400	91.5	0.0	-.7	0.0	-74.9	0.0
.555	.450	85.9	0.0	-1.2	0.0	-71.3	0.0
.631	.500	81.9	0.0	-2.0	0.0	-66.7	0.0
.709	.550	78.6	0.0	-3.3	0.0	-61.2	0.0
.789	.600	75.7	0.0	-4.7	0.0	-54.2	0.0
.830	.625	74.3	0.0	-5.2	0.0	-50.0	0.0
.872	.650	73.1	0.0	-5.2	0.0	-45.3	0.0
.914	.675	71.9	0.0	-4.5	0.0	-40.1	0.0
.957	.700	70.8	0.0	-2.8	0.0	-34.3	0.0
1.001	.725	70.0	0.0	.1	0.0	-27.6	0.0
1.045	.750	69.5	0.0	5.0	0.0	-19.4	0.0
1.089	.800	68.9	0.0	20.8	0.0	.4	0.0
1.133	.850	69.9	0.0	38.6	0.0	22.4	0.0
1.177	.900	125.8	0.0	16.1	0.0	43.2	0.0
1.221	.950	-155.0	0.0	-41.2	0.0	75.7	0.0
1.265	1.000	-160.5	0.0	-32.0	0.0	-13.1	0.0
1.309	1.050	-175.0	0.0	-18.4	0.0	-111.5	0.0
1.353	1.100	155.0	0.0	-9.7	0.0	-92.6	0.0
1.397	1.150	103.9	0.0	-24.3	0.0	-77.0	0.0
1.441	1.200	61.2	0.0	-109.6	0.0	-65.3	0.0
1.485	1.250	20.2	0.0	-130.6	0.0	-91.0	0.0
1.529	1.300	-23.0	0.0	-149.3	0.0	142.2	0.0
1.573	1.350	-98.4	0.0	130.8	0.0	107.4	0.0
1.617	1.400	71.4	0.0	9.1	0.0	-66.5	0.0
1.661	1.450	-159.0	0.0	-102.6	0.0	119.6	0.0
1.705	1.500	-24.0	0.0	-135.0	0.0	45.1	0.0

REC = 63 HEADING = 180. DEG SHIP SPEED = 15. KNOTS
 RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.232	.200	5.332E-01 0.		9.922E-01 0.		7.297E-03 0.	
.293	.250	3.637E-01 0.		9.887E-01 0.		1.536E-02 0.	
.371	.300	2.777E-01 0.		9.955E-01 0.		2.807E-02 0.	
.446	.350	2.216E-01 0.		9.905E-01 0.		4.884E-02 0.	
.526	.400	1.784E-01 0.		9.680E-01 0.		8.017E-02 0.	
.603	.450	1.416E-01 0.		9.253E-01 0.		1.220E-01 0.	
.697	.500	1.085E-01 0.		9.043E-01 0.		1.736E-01 0.	
.788	.550	7.899E-02 0.		9.248E-01 0.		2.349E-01 0.	
.884	.600	5.347E-02 0.		9.833E-01 0.		2.959E-01 0.	
.933	.625	4.247E-02 0.		1.021E+00 0.		3.206E-01 0.	
.992	.650	3.271E-02 0.		1.050E+00 0.		3.367E-01 0.	
1.034	.675	2.391E-02 0.		1.103E+00 0.		3.475E-01 0.	
1.085	.700	1.557E-02 0.		1.127E+00 0.		3.420E-01 0.	
1.133	.725	1.079E-02 0.		1.067E+00 0.		3.128E-01 0.	
1.193	.750	6.559E-03 0.		8.895E-01 0.		2.596E-01 0.	
1.304	.800	1.920E-03 0.		3.515E-01 0.		1.307E-01 0.	
1.413	.850	2.909E-04 0.		4.405E-02 0.		4.616E-02 0.	
1.533	.900	1.475E-06 0.		1.187E-03 0.		1.101E-02 0.	
1.661	.950	8.789E-05 0.		1.597E-02 0.		1.041E-03 0.	
1.788	1.000	1.322E-04 0.		1.313E-02 0.		7.828E-04 0.	
1.918	1.050	9.643E-05 0.		6.325E-03 0.		1.951E-03 0.	
2.053	1.100	5.811E-05 0.		1.852E-03 0.		1.791E-03 0.	
2.192	1.150	3.566E-05 0.		3.323E-04 0.		7.717E-04 0.	
2.334	1.200	2.298E-05 0.		1.224E-04 0.		2.253E-04 0.	
2.481	1.250	2.215E-05 0.		1.085E-04 0.		8.347E-05 0.	
2.631	1.300	2.349E-05 0.		2.893E-04 0.		1.047E-05 0.	
2.783	1.400	9.034E-06 0.		9.903E-05 0.		1.067E-04 0.	
3.616	1.600	3.020E-06 0.		6.483E-06 0.		5.901E-05 0.	
4.351	1.800	1.967E-06 0.		7.538E-07 0.		2.466E-05 0.	
5.150	2.000	1.111E-06 0.		2.645E-06 0.		4.419E-06 0.	

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.232	.200	121.9	0.0	.1	0.0	-79.6	0.0
.239	.230	110.4	0.0	-0.0	0.0	-77.6	0.0
.371	.300	102.2	0.0	-3.3	0.0	-75.2	0.0
.445	.350	95.8	0.0	-5.5	0.0	-73.2	0.0
.526	.400	90.6	0.0	-8.8	0.0	-70.3	0.0
.609	.450	85.1	0.0	-1.2	0.0	-66.2	0.0
.697	.500	82.5	0.0	-1.8	0.0	-60.9	0.0
.783	.550	79.5	0.0	-2.0	0.0	-53.8	0.0
.884	.600	76.8	0.0	-5.5	0.0	-44.5	0.0
.933	.650	75.7	0.0	1.5	0.0	-39.0	0.0
.983	.650	74.6	0.0	4.8	0.0	-32.7	0.0
1.034	.675	73.9	0.0	10.2	0.0	-24.6	0.0
1.085	.700	73.3	0.0	18.3	0.0	-15.1	0.0
1.139	.725	72.4	0.0	29.2	0.0	-4.4	0.0
1.193	.750	71.0	0.0	42.5	0.0	7.2	0.0
1.304	.800	66.6	0.0	71.3	0.0	29.1	0.0
1.419	.850	62.3	0.0	95.7	0.0	43.9	0.0
1.538	.900	153.5	0.0	-13.6	0.0	71.0	0.0
1.661	.950	-147.2	0.0	-23.0	0.0	116.6	0.0
1.783	1.000	-159.3	0.0	-9.6	0.0	-118.2	0.0
1.913	1.050	179.2	0.0	-2.9	0.0	-86.0	0.0
2.053	1.100	147.0	0.0	-6.3	0.0	-71.9	0.0
2.192	1.150	111.2	0.0	-34.1	0.0	-71.9	0.0
2.334	1.200	67.3	0.0	-93.9	0.0	-99.6	0.0
2.481	1.250	20.4	0.0	-166.1	0.0	-118.9	0.0
2.631	1.300	-14.8	0.0	156.2	0.0	-157.9	0.0
2.943	1.400	-90.7	0.0	150.6	0.0	83.5	0.0
3.616	1.600	56.6	0.0	22.7	0.0	-83.4	0.0
4.351	1.800	-165.9	0.0	-58.2	0.0	117.2	0.0
5.150	2.000	-26.7	0.0	167.1	0.0	-39.5	0.0

REC = 54 HEADING = 180. DEG SHIP SPEED = 20. KNOTS
 RAO (MOTION/HAVERH)**2

NE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.242	.200	4.473E-01 0.	9.982E-01 0.	7.898E-03 0.	1.560E-02 0.	2.767E-02 0.	7.898E-03 0.
.315	.250	2.939E-01 0.	1.006E+00 0.	1.006E+00 0.	1.560E-02 0.	2.767E-02 0.	1.560E-02 0.
.395	.300	2.174E-01 0.	1.024E+00 0.	1.024E+00 0.	1.034E+00 0.	4.775E-02 0.	2.767E-02 0.
.479	.350	1.587E-01 0.	1.034E+00 0.	1.034E+00 0.	1.034E+00 0.	7.849E-02 0.	4.775E-02 0.
.563	.400	1.324E-01 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.197E-01 0.	7.849E-02 0.
.663	.450	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.724E-01 0.	1.197E-01 0.
.763	.500	7.648E-02 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.344E-01 0.	1.724E-01 0.
.858	.550	5.426E-02 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.930E-01 0.	2.344E-01 0.
.978	.600	3.567E-02 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	3.174E-01 0.	2.930E-01 0.
1.035	.625	2.743E-02 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	3.166E-01 0.	3.174E-01 0.
1.094	.650	2.020E-02 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.760E-01 0.	3.166E-01 0.
1.153	.675	1.418E-02 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.160E-01 0.	2.760E-01 0.
1.213	.700	9.464E-03 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.550E-01 0.	2.160E-01 0.
1.277	.725	6.038E-03 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	6.570E-02 0.	1.550E-01 0.
1.341	.750	3.685E-03 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.272E-02 0.	6.570E-02 0.
1.472	.800	1.028E-03 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	4.468E-03 0.	2.272E-02 0.
1.609	.850	1.430E-04 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.087E-04 0.	4.468E-03 0.
1.751	.900	1.700E-07 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	4.033E-04 0.	1.087E-04 0.
1.893	.950	3.293E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	7.067E-04 0.	4.033E-04 0.
2.050	1.000	5.396E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.955E-04 0.	7.067E-04 0.
2.209	1.050	5.182E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.044E-04 0.	2.955E-04 0.
2.370	1.100	3.546E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.051E-04 0.	2.044E-04 0.
2.539	1.150	2.123E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.516E-05 0.	1.051E-04 0.
2.712	1.200	1.446E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	8.814E-05 0.	1.516E-05 0.
2.891	1.250	1.318E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	3.814E-05 0.	8.814E-05 0.
3.075	1.300	1.507E-05 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	1.698E-05 0.	3.814E-05 0.
3.453	1.400	4.257E-06 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	3.012E-06 0.	1.698E-05 0.
4.283	1.600	1.263E-06 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.	2.027E-06 0.	3.012E-06 0.
5.202	1.800	9.291E-07 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.		
6.201	2.000	5.795E-07 0.	1.025E-01 0.	1.025E-01 0.	1.025E-01 0.		

PHASE (MOTION-AVEHT)

WE	M	SURGE	SHAY	HEAVE	ROLL	PITCH	YAH
242	200	122.0	0.0	0	0.0	-74.7	0.0
315	250	110.5	0.0	-1	0.0	-72.7	0.0
395	300	102.3	0.0	-3	0.0	-70.7	0.0
479	350	95.9	0.0	-4	0.0	-68.9	0.0
563	400	90.7	0.0	-6	0.0	-65.9	0.0
663	450	86.4	0.0	-6	0.0	-61.4	0.0
763	500	83.2	0.0	-2	0.0	-54.9	0.0
868	550	80.4	0.0	1.8	0.0	-46.2	0.0
973	600	78.0	0.0	7.7	0.0	-34.6	0.0
1035	625	77.3	0.0	13.5	0.0	-26.6	0.0
1094	650	76.6	0.0	22.3	0.0	-17.9	0.0
1153	675	75.8	0.0	34.2	0.0	-6.0	0.0
1215	700	74.3	0.0	43.8	0.0	5.8	0.0
1277	725	72.2	0.0	65.0	0.0	17.3	0.0
1341	750	69.5	0.0	80.9	0.0	27.5	0.0
1472	800	63.3	0.0	113.6	0.0	46.6	0.0
1609	850	55.6	0.0	142.6	0.0	65.9	0.0
1751	900	-64.0	0.0	-21.3	0.0	87.3	0.0
1893	950	-140.6	0.0	-5.1	0.0	123.2	0.0
2050	1000	-159.8	0.0	1.9	0.0	-81.2	0.0
2203	1050	-179.8	0.0	1.2	0.0	-70.8	0.0
2370	1100	153.8	0.0	-9.5	0.0	-71.3	0.0
2533	1150	117.3	0.0	-3.6	0.0	-86.5	0.0
2712	1200	70.9	0.0	99.8	0.0	-99.2	0.0
2891	1250	21.3	0.0	158.0	0.0	-101.0	0.0
3075	1300	-18.4	0.0	173.9	0.0	-82.5	0.0
3453	1400	-87.2	0.0	170.5	0.0	81.4	0.0
4238	1600	54.0	0.0	19.1	0.0	-89.2	0.0
5202	1800	-172.2	0.0	-144.5	0.0	92.6	0.0
6200	2000	-24.8	0.0	178.1	0.0	-18.4	0.0

REC = 55 HEADING = 180. DEG SHIP SPEED = 25. KNOTS RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.293	.200	3.781E-01 0.	1.009E+00 0.	8.366E-03 0.			
.332	.250	2.402E-01 0.	1.029E+00 0.	1.541E-02 0.			
.413	.300	1.727E-01 0.	1.059E+00 0.	2.660E-02 0.			
.511	.350	1.309E-01 0.	1.094E+00 0.	4.576E-02 0.			
.610	.400	1.005E-01 0.	1.093E+00 0.	7.569E-02 0.			
.716	.450	7.591E-02 0.	1.169E+00 0.	1.152E-01 0.			
.828	.500	5.544E-02 0.	1.332E+00 0.	1.666E-01 0.			
.947	.550	3.843E-02 0.	1.594E+00 0.	2.262E-01 0.			
1.073	.600	2.396E-02 0.	2.016E+00 0.	2.803E-01 0.			
1.139	.635	1.796E-02 0.	2.212E+00 0.	2.897E-01 0.			
1.205	.650	1.276E-02 0.	2.211E+00 0.	2.740E-01 0.			
1.273	.675	8.773E-03 0.	1.902E+00 0.	2.326E-01 0.			
1.343	.700	5.845E-03 0.	1.372E+00 0.	1.792E-01 0.			
1.415	.725	3.661E-03 0.	8.176E-01 0.	1.273E-01 0.			
1.488	.750	2.175E-03 0.	4.124E-01 0.	8.819E-02 0.			
1.640	.800	5.955E-04 0.	6.307E-02 0.	3.786E-02 0.			
1.793	.850	9.496E-05 0.	1.798E-03 0.	1.067E-02 0.			
1.953	.900	3.027E-06 0.	1.380E-03 0.	1.513E-03 0.			
2.135	.950	1.718E-05 0.	2.866E-03 0.	4.716E-06 0.			
2.313	1.000	3.437E-05 0.	1.933E-03 0.	1.883E-04 0.			
2.497	1.050	3.302E-05 0.	9.411E-04 0.	2.257E-04 0.			
2.683	1.100	2.420E-05 0.	3.789E-04 0.	1.826E-04 0.			
2.865	1.150	1.361E-05 0.	1.023E-04 0.	1.841E-04 0.			
3.091	1.200	6.672E-06 0.	1.955E-05 0.	1.780E-04 0.			
3.301	1.250	7.083E-06 0.	2.135E-05 0.	9.719E-05 0.			
3.514	1.300	8.110E-06 0.	8.266E-05 0.	1.260E-05 0.			
3.972	1.400	2.027E-06 0.	2.381E-05 0.	6.309E-05 0.			
4.960	1.600	4.637E-07 0.	7.300E-06 0.	2.472E-05 0.			
6.052	1.800	6.118E-07 0.	9.547E-07 0.	1.406E-05 0.			
7.249	2.000	3.706E-07 0.	2.126E-06 0.	2.559E-06 0.			

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.253	.239	122.2	0.0	-1.1	0.0	-69.4	0.0
.372	.250	110.8	0.0	-1.1	0.0	-67.5	0.0
.418	.300	102.5	0.0	-1.1	0.0	-66.2	0.0
.511	.350	96.0	0.0	-0.0	0.0	-64.9	0.0
.610	.400	90.8	0.0	1.1	0.0	-62.0	0.0
.716	.450	86.9	0.0	2.7	0.0	-56.8	0.0
.828	.500	83.8	0.0	7.8	0.0	-49.2	0.0
.947	.550	81.2	0.0	20.3	0.0	-38.8	0.0
1.073	.600	79.6	0.0	31.3	0.0	-23.2	0.0
1.133	.625	78.9	0.0	45.5	0.0	-12.8	0.0
1.205	.650	77.9	0.0	62.0	0.0	-1.2	0.0
1.273	.675	76.1	0.0	79.1	0.0	10.5	0.0
1.343	.700	73.8	0.0	97.4	0.0	21.5	0.0
1.415	.725	71.2	0.0	114.2	0.0	31.4	0.0
1.488	.750	68.2	0.0	143.8	0.0	40.5	0.0
1.640	.800	60.9	0.0	159.3	0.0	59.0	0.0
1.798	.850	46.2	0.0	1.9	0.0	77.0	0.0
1.963	.900	-14.3	0.0	5.4	0.0	90.0	0.0
2.135	.950	-128.2	0.0	6.1	0.0	59.3	0.0
2.313	1.000	-151.8	0.0	8.2	0.0	-62.5	0.0
2.497	1.050	-177.2	0.0	17.6	0.0	-66.8	0.0
2.688	1.100	153.3	0.0	3.6	0.0	-83.1	0.0
2.889	1.150	119.5	0.0	-38.5	0.0	-97.9	0.0
3.090	1.200	71.5	0.0	-179.1	0.0	-102.1	0.0
3.301	1.250	19.1	0.0	-173.7	0.0	-95.0	0.0
3.518	1.300	-13.2	0.0	-179.8	0.0	-63.9	0.0
3.972	1.400	-90.7	0.0	9.4	0.0	83.8	0.0
4.960	1.600	58.4	0.0	-111.1	0.0	-108.1	0.0
6.052	1.800	179.0	0.0	-162.5	0.0	100.6	0.0
7.249	2.000	-15.3	0.0			6.3	0.0

NO OF DATA

109711

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-Q1

DLG 26

RAO TABLES

0 - 180 @ 15 DEGREES

0 - 25 @ 5 KNOTS

DLG 26

NO. OF RECORDS = 65

NO. OF FREQS = 30

REC = 1

HEADING =

0. DEG

SHIP SPEED = 5. KNOTS

RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	1.056E+00	7.913E-15	9.775E-01	4.347E-17	4.727E-03	3.344E-17
.234	.250	1.006E+00	7.733E-15	9.449E-01	1.203E-16	1.143E-02	8.233E-17
.276	.300	9.558E-01	8.462E-15	8.963E-01	3.202E-16	2.317E-02	2.218E-16
.318	.350	8.802E-01	8.328E-15	8.220E-01	8.917E-16	4.071E-02	4.372E-16
.359	.400	7.704E-01	7.115E-15	7.117E-01	1.818E-15	6.277E-02	6.758E-16
.397	.450	6.281E-01	5.412E-15	5.679E-01	3.715E-15	8.557E-02	8.923E-16
.434	.500	4.648E-01	3.656E-15	4.040E-01	6.796E-15	1.028E-01	1.025E-15
.471	.550	3.012E-01	2.165E-15	2.438E-01	1.094E-14	1.074E-01	1.017E-15
.506	.600	1.618E-01	1.116E-15	1.143E-01	1.510E-14	9.495E-02	8.472E-16
.523	.625	1.077E-01	7.629E-16	6.747E-02	1.707E-14	8.280E-02	7.116E-16
.539	.650	6.571E-02	5.070E-16	3.401E-02	1.834E-14	6.793E-02	5.566E-16
.555	.675	3.591E-02	3.255E-16	1.324E-02	1.918E-14	5.179E-02	3.975E-16
.571	.700	1.713E-02	1.945E-16	3.243E-03	2.035E-14	3.606E-02	2.521E-16
.587	.725	7.220E-03	9.428E-17	1.125E-03	2.833E-14	2.233E-02	1.399E-16
.602	.750	3.563E-03	2.048E-17	3.645E-03	3.811E-14	1.189E-02	8.271E-17
.632	.800	4.183E-03	3.544E-16	1.180E-02	2.818E-13	2.471E-03	4.416E-16
.660	.850	4.168E-03	2.452E-15	1.243E-02	1.344E-13	5.055E-03	9.943E-16
.683	.900	1.342E-03	2.603E-16	5.637E-03	1.134E-13	9.458E-03	2.697E-17
.713	.950	9.582E-05	8.225E-17	3.360E-04	1.605E-14	7.815E-03	2.420E-18
.739	1.000	1.273E-03	6.956E-17	1.265E-03	3.373E-15	2.650E-03	5.570E-18
.761	1.050	1.587E-03	4.104E-17	3.228E-03	4.718E-15	1.334E-03	9.603E-18
.783	1.100	3.865E-04	2.660E-17	1.791E-03	3.700E-15	3.640E-03	1.038E-17
.803	1.150	1.190E-04	3.450E-17	2.512E-04	1.787E-15	3.174E-03	7.183E-18
.822	1.200	7.393E-04	2.714E-17	1.218E-03	1.742E-15	6.474E-04	8.465E-18
.843	1.250	4.663E-04	1.751E-17	1.478E-03	1.735E-15	1.345E-03	9.612E-18
.867	1.300	4.356E-05	2.452E-17	4.935E-04	1.118E-15	2.305E-03	6.170E-18
.885	1.400	2.253E-04	1.314E-17	8.631E-04	9.883E-16	7.618E-04	7.561E-18
.908	1.600	3.932E-05	1.345E-17	2.354E-04	3.991E-16	7.805E-04	4.203E-18
.930	1.800	7.293E-06	9.343E-18	7.575E-05	2.034E-16	4.408E-04	2.450E-18
.951	2.000	7.207E-06	1.533E-18	2.674E-06	5.578E-17	2.545E-04	1.542E-18

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	-109.1	-90.0	.1	-102.3	91.3	-172.7
.234	.250	-105.0	-93.0	.1	-108.0	89.4	-171.4
.276	.300	-102.9	-88.4	.0	-114.0	87.4	-172.3
.318	.350	-101.9	-87.9	-.1	-119.4	85.3	-169.8
.358	.400	-101.4	-88.4	-.1	-122.8	83.2	-165.8
.397	.450	-101.3	-89.9	.1	-124.1	80.9	-161.1
.434	.500	-101.7	-92.7	.5	-123.0	78.1	-156.0
.471	.550	-102.7	-97.6	1.4	-119.3	74.8	-150.2
.505	.600	-104.9	-105.9	3.3	-112.1	70.6	-142.9
.523	.625	-107.0	-111.7	5.0	-106.5	67.9	-138.4
.539	.650	-110.1	-118.8	8.1	-98.9	64.8	-132.8
.555	.675	-115.2	-126.7	14.6	-88.1	61.0	-125.4
.571	.700	-124.2	-135.1	33.4	-72.8	56.2	-114.4
.587	.725	-141.4	-143.6	101.6	-51.7	49.4	-95.5
.602	.750	-172.4	-158.7	149.1	-25.1	39.2	-57.9
.632	.800	131.8	65.7	162.4	35.7	-15.3	37.3
.660	.850	113.5	167.3	167.0	163.4	-87.6	162.7
.688	.900	101.4	-135.2	171.4	-141.5	-112.2	-157.6
.713	.950	-6.1	-74.8	-166.5	-104.2	-129.9	139.6
.739	1.000	-54.1	-27.0	-22.8	-26.6	-159.6	157.0
.761	1.050	-56.1	14.6	-11.6	35.3	116.1	-159.3
.783	1.100	-47.8	76.4	2.0	73.0	70.0	-119.9
.803	1.150	97.2	129.2	72.9	126.2	47.0	-67.0
.822	1.200	118.4	172.2	151.0	-169.0	-1.1	-3.7
.840	1.250	131.7	-123.7	175.9	-121.0	-100.8	44.1
.857	1.300	-148.9	-64.0	-133.0	-65.2	-129.0	100.8
.885	1.400	-49.3	55.2	-12.8	51.7	75.7	-134.2
.928	1.600	-101.4	-45.6	-98.0	-33.7	-153.8	144.0
.950	1.800	-86.0	-90.0	163.5	-111.8	-127.9	74.6
.951	2.000	-171.1	-121.5	147.7	-135.4	-104.7	52.6

REC = 2 HEADING = 0. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	1.319E+00	9.107E-15	9.719E-01	4.173E-17	4.304E-03	3.135E-17
.217	.250	1.333E+00	9.136E-15	9.358E-01	1.126E-16	1.052E-02	8.409E-17
.253	.300	1.355E+00	9.079E-15	8.757E-01	2.707E-16	2.106E-02	1.988E-16
.286	.350	1.377E+00	9.580E-15	7.961E-01	6.411E-16	3.695E-02	4.928E-16
.316	.400	1.298E+00	8.703E-15	6.825E-01	1.370E-15	5.635E-02	8.624E-16
.344	.450	1.106E+00	6.993E-15	5.393E-01	2.584E-15	7.552E-02	1.249E-15
.363	.500	8.262E-01	4.927E-15	3.803E-01	4.201E-15	8.884E-02	1.533E-15
.391	.550	6.243E-01	3.012E-15	2.292E-01	5.727E-15	9.060E-02	1.649E-15
.411	.600	3.664E-01	1.601E-15	1.082E-01	6.287E-15	7.814E-02	1.451E-15
.420	.625	2.552E-01	1.136E-15	6.462E-02	5.966E-15	6.728E-02	1.245E-15
.428	.650	1.631E-01	8.234E-16	3.324E-02	5.241E-15	5.449E-02	9.892E-16
.436	.675	9.325E-02	6.342E-16	1.342E-02	4.243E-15	4.100E-02	7.124E-16
.443	.700	4.630E-02	5.294E-16	3.441E-03	3.214E-15	2.817E-02	4.438E-16
.449	.725	2.001E-02	4.666E-16	7.746E-04	2.467E-15	1.722E-02	2.320E-16
.453	.750	9.885E-03	4.096E-16	2.537E-03	2.293E-15	9.035E-03	8.839E-17
.464	.800	1.394E-02	2.419E-16	8.904E-03	4.040E-15	1.891E-03	4.701E-17
.471	.850	1.660E-02	5.459E-17	9.173E-03	6.791E-15	3.365E-03	2.002E-16
.475	.900	6.574E-03	5.403E-16	3.847E-03	6.746E-15	5.666E-03	2.770E-16
.476	.950	2.594E-04	9.593E-17	1.663E-04	3.405E-15	4.325E-03	1.815E-16
.475	1.000	6.437E-03	1.345E-16	8.372E-04	9.797E-16	1.461E-03	9.444E-17
.471	1.050	1.044E-02	5.024E-17	1.968E-03	1.675E-15	7.664E-04	1.488E-16
.465	1.100	3.837E-03	2.183E-17	9.135E-04	2.409E-15	1.607E-03	1.957E-16
.456	1.150	9.023E-04	9.788E-17	4.369E-07	1.486E-15	1.274E-03	1.315E-16
.444	1.200	7.887E-03	8.105E-17	6.054E-04	1.073E-15	3.025E-04	1.241E-16
.430	1.250	7.090E-03	2.917E-17	6.704E-04	1.320E-15	4.504E-04	1.895E-16
.413	1.300	1.119E-03	1.232E-16	3.868E-05	9.200E-16	6.829E-04	1.415E-16
.371	1.400	7.750E-03	3.869E-17	3.579E-04	7.637E-16	1.653E-04	2.157E-16
.256	1.600	5.276E-03	3.365E-16	6.878E-06	3.621E-17	1.309E-04	4.511E-17
.093	1.800	6.502E-03	1.815E-14	5.665E-05	5.633E-17	3.012E-05	2.372E-15
.101	2.000	1.123E-01	8.406E-15	2.218E-05	2.544E-17	1.875E-05	2.742E-15

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	-109.0	-90.4	.1	-104.8	90.3	-167.2
.217	.250	-104.8	-90.5	.2	-110.5	88.7	-166.9
.253	.300	-102.5	-90.4	.2	-116.2	87.1	-166.4
.286	.350	-101.4	-89.6	.0	-121.5	84.7	-166.4
.316	.400	-100.9	-90.3	-.1	-125.3	82.4	-163.7
.344	.450	-100.7	-92.4	-.2	-127.0	79.7	-160.1
.363	.500	-100.9	-95.2	-.2	-126.5	76.6	-156.0
.391	.550	-101.8	-103.1	.0	-123.8	72.7	-151.4
.411	.600	-103.8	-115.4	.9	-119.0	67.8	-145.9
.420	.625	-105.7	-124.7	2.0	-113.4	64.7	-142.7
.428	.650	-108.6	-136.3	4.0	-107.1	61.2	-139.0
.436	.675	-113.3	-149.8	8.7	-98.0	56.9	-134.5
.443	.700	-121.8	-163.6	22.7	-84.5	51.6	-128.5
.449	.725	-138.5	-175.8	84.7	-64.6	44.3	-119.6
.453	.750	-170.1	-174.2	139.9	-38.9	33.4	-102.5
.464	.800	132.1	160.9	155.9	5.4	-21.6	2.4
.471	.850	114.8	152.9	157.1	30.2	-93.3	40.9
.475	.900	105.0	-21.8	155.0	48.7	-120.4	60.6
.476	.950	9.6	-26.8	143.1	72.3	-141.1	87.1
.475	1.000	-54.1	-23.2	-22.5	129.9	-174.8	141.5
.471	1.050	-54.9	-5.6	-28.0	-155.6	105.2	-159.2
.465	1.100	-45.0	93.1	-31.5	-119.5	56.6	-122.6
.456	1.150	88.1	134.6	78.8	-78.6	28.5	-79.2
.444	1.200	118.6	158.2	138.8	-13.7	-23.0	-13.2
.430	1.250	134.3	-122.5	136.3	39.0	-117.1	36.4
.413	1.300	-158.9	-61.0	143.3	88.1	-152.3	83.0
.371	1.400	-46.4	64.8	-63.2	-154.6	56.7	-148.5
.255	1.500	-111.6	-55.3	-40.8	106.2	-179.6	105.4
.099	1.800	-179.3	-56.7	70.9	24.8	-119.6	26.7
.101	2.000	-174.1	-57.3	74.3	11.6	-85.5	19.5

REC = 3 HEADING = 0. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.169	.200	1.669E+00	1.083E-14	9.663E-01	4.122E-17	3.866E-03	2.290E-17
.201	.250	1.818E+00	1.119E-14	9.262E-01	1.097E-16	9.563E-03	6.864E-17
.229	.300	1.991E+00	1.144E-14	8.627E-01	2.850E-16	1.923E-02	1.790E-16
.254	.350	2.135E+00	1.126E-14	7.693E-01	5.447E-16	3.293E-02	4.086E-16
.274	.400	2.204E+00	1.090E-14	6.522E-01	1.098E-15	4.996E-02	8.988E-16
.291	.450	2.146E+00	9.304E-15	5.088E-01	1.944E-15	6.618E-02	1.518E-15
.303	.500	1.924E+00	7.001E-15	3.540E-01	2.931E-15	7.680E-02	2.146E-15
.312	.550	1.537E+00	4.650E-15	2.096E-01	3.851E-15	7.663E-02	2.573E-15
.317	.600	1.039E+00	2.914E-15	9.713E-02	3.595E-15	6.488E-02	2.562E-15
.317	.625	7.818E-01	2.408E-15	5.737E-02	3.197E-15	5.506E-02	2.347E-15
.317	.650	5.424E-01	2.140E-15	2.915E-02	2.598E-15	4.407E-02	1.999E-15
.316	.675	3.379E-01	2.058E-15	1.160E-02	1.896E-15	3.277E-02	1.552E-15
.314	.700	1.824E-01	2.066E-15	2.911E-03	1.223E-15	2.225E-02	1.061E-15
.311	.725	8.339E-02	2.055E-15	6.319E-04	7.109E-16	1.344E-02	5.976E-16
.307	.750	4.044E-02	1.921E-15	2.087E-03	4.585E-16	6.965E-03	2.364E-16
.296	.800	7.432E-02	1.138E-15	7.011E-03	7.387E-16	1.297E-03	1.418E-17
.281	.850	1.316E-01	1.753E-16	6.705E-03	1.349E-15	2.067E-03	3.758E-16
.262	.900	8.759E-02	1.779E-16	2.439E-03	1.280E-15	3.457E-03	6.867E-16
.239	.950	5.412E-03	1.240E-15	5.340E-05	5.954E-15	2.606E-03	4.944E-16
.213	1.000	1.014E-01	1.852E-15	7.353E-04	5.862E-17	8.712E-04	9.709E-17
.182	1.050	3.974E-01	4.089E-16	1.357E-03	6.834E-17	3.690E-04	3.758E-16
.147	1.100	4.203E-01	2.074E-15	5.220E-04	1.955E-16	8.245E-04	1.348E-15
.109	1.150	6.436E-02	2.004E-14	1.698E-05	8.775E-17	7.935E-04	1.234E-15
.066	1.200	1.034E+01	6.544E-14	4.672E-04	1.837E-17	2.712E-04	1.410E-17
.020	1.250	1.539E+03	8.767E-13	4.560E-04	1.013E-16	1.568E-04	1.139E-15
.031	1.300	4.218E+01	1.758E-12	2.163E-05	5.151E-17	4.619E-04	9.584E-15
.143	1.400	3.446E-01	1.023E-15	2.545E-04	1.483E-16	7.619E-05	9.170E-16
.216	1.600	9.570E-04	8.285E-17	4.174E-06	3.789E-16	1.596E-04	5.137E-17
.751	1.800	1.743E-05	1.895E-17	9.847E-05	1.715E-15	1.898E-04	1.218E-18
1.150	2.000	3.802E-06	7.872E-19	1.310E-04	9.797E-18	2.227E-04	6.815E-19

PHASE (MOTION-HAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	-108.9	-90.8	.2	-108.3	88.9	-158.0
.201	.250	-104.5	-91.0	.3	-114.2	87.9	-159.2
.223	.300	-102.2	-91.5	.2	-120.0	86.4	-160.4
.254	.350	-100.8	-92.1	.2	-125.1	84.6	-160.4
.274	.400	-100.1	-93.1	.0	-129.0	81.9	-159.6
.291	.450	-99.8	-95.0	-.3	-131.2	79.0	-157.3
.303	.500	-99.9	-101.6	-.6	-131.5	75.5	-154.4
.312	.550	-100.4	-111.5	-.8	-129.9	71.5	-150.9
.317	.600	-102.0	-128.8	-.4	-126.1	66.4	-147.1
.317	.625	-103.5	-140.7	.3	-122.9	63.4	-145.0
.317	.650	-106.0	-153.8	.3	-118.5	59.9	-142.8
.316	.675	-110.0	-166.5	6.3	-112.0	55.7	-140.5
.314	.700	-117.4	-177.4	19.8	-101.9	50.5	-137.9
.311	.725	-132.5	173.8	82.1	-84.6	43.6	-135.0
.307	.750	-163.9	167.0	137.1	-55.0	33.5	-131.3
.296	.800	132.7	157.6	151.8	1.6	-18.5	37.0
.281	.850	115.7	146.1	152.0	24.9	-93.1	53.9
.262	.900	108.1	-13.8	148.1	35.7	-119.5	60.5
.239	.950	66.9	-24.4	116.5	42.8	-138.4	68.1
.213	1.000	-49.5	-25.7	-27.3	60.1	-158.6	109.0
.182	1.050	-51.1	-12.9	-36.5	-144.5	114.3	-147.1
.147	1.100	-43.6	132.5	-46.2	-129.1	65.0	-128.7
.103	1.150	65.6	136.3	-175.6	-112.2	41.4	-120.1
.066	1.200	127.4	129.8	134.3	-5.7	8.7	-127.2
.027	1.250	141.8	115.5	114.0	42.3	-64.6	116.7
.031	1.300	179.4	-68.1	52.2	61.5	-122.5	33.2
.143	1.400	-44.0	115.1	-69.0	-151.9	85.3	-147.7
.416	1.600	-103.2	-45.7	-78.6	110.7	175.5	118.9
.751	1.800	-89.9	-96.7	128.4	-131.7	-148.8	82.7
1.151	2.000	-167.0	-104.7	15.6	-131.4	-68.9	60.4

REC =	4	HEADING =	0. DEG	SHIP SPEED = 20. KNOTS	RAO	IMOTION/NAVENT)**2	ROLL	PITCH	YAW
WE	153	2.145E+00	1.351E+14	9.609E-01	4.204E-17	3.406E-03	1.256E-17		
154	250	2.543E+00	1.497E+14	9.193E-01	1.121E-16	8.643E-03	4.737E-17		
155	300	3.055E+00	1.610E+14	8.511E-01	2.593E-16	1.738E-02	1.356E-16		
156	350	3.655E+00	1.679E+14	7.544E-01	5.352E-16	2.972E-02	3.363E-16		
157	400	4.253E+00	1.658E+14	6.277E-01	9.858E-16	4.404E-02	6.948E-16		
158	450	4.782E+00	1.533E+14	4.799E-01	1.605E-15	5.731E-02	1.267E-15		
159	500	5.083E+00	1.307E+14	3.270E-01	2.245E-15	6.547E-02	2.027E-15		
160	550	5.002E+00	1.026E+14	1.892E-01	2.651E-15	6.491E-02	2.876E-15		
161	600	4.372E+00	7.975E-15	8.512E-02	2.522E-15	5.460E-02	3.935E-15		
162	625	3.833E+00	7.474E-15	4.825E-02	2.218E-15	4.653E-02	3.645E-15		
163	650	3.173E+00	7.606E-15	2.433E-02	1.793E-15	3.740E-02	3.570E-15		
164	675	2.419E+00	8.454E-15	9.119E-03	1.279E-15	2.808E-02	3.287E-15		
165	700	1.636E+00	1.018E-14	2.332E-03	7.872E-16	1.944E-02	2.837E-15		
166	725	9.445E-01	1.252E-14	9.076E-04	3.741E-16	1.210E-02	2.210E-15		
167	750	4.995E-01	1.515E-14	2.598E-03	1.073E-16	6.553E-03	1.544E-15		
168	800	1.539E+00	2.132E-14	7.040E-03	1.081E-16	1.105E-03	7.036E-15		
169	850	1.091E+01	3.902E-14	6.293E-03	5.407E-16	9.940E-04	1.489E-15		
170	900	9.780E+01	2.497E-13	2.055E-03	7.793E-16	2.399E-03	3.244E-15		
171	950	4.336E+03	3.207E-11	4.618E-05	4.731E-16	2.994E-03	1.632E-14		
172	1.000	2.113E+01	4.273E-13	9.444E-04	7.826E-17	1.119E-03	1.898E-15		
173	1.050	3.016E+00	2.834E-15	1.324E-03	6.122E-17	2.719E-04	3.132E-16		
174	1.100	2.299E-01	1.536E-15	5.014E-04	2.494E-16	7.943E-04	7.215E-16		
175	1.150	6.112E-03	1.163E-15	2.917E-06	1.894E-16	7.582E-04	2.093E-16		
176	1.200	2.912E-02	2.508E-16	4.529E-04	3.173E-16	1.847E-04	1.698E-16		
177	1.250	1.034E-02	9.046E-17	6.246E-04	1.059E-15	3.629E-04	2.097E-16		
178	1.300	6.313E-04	9.569E-17	1.339E-04	1.901E-15	6.580E-04	9.999E-17		
179	1.350	7.702E-04	5.953E-16	4.847E-04	2.936E-13	2.774E-04	2.477E-16		
180	1.400	1.753E-05	5.280E-18	1.145E-03	1.145E-16	6.194E-04	2.437E-18		
181	1.450	1.271E-06	1.186E-19	1.055E-04	3.002E-18	5.155E-05	2.542E-19		
182	1.500	5.273E-07	1.613E-19	1.469E-05	1.356E-20	1.509E-05	2.873E-20		

PHASE (MOTION-WAVEHT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.153	.200	-108.7	-91.2	.2	-112.0	87.0	-139.5
.184	.250	-104.3	-91.5	.2	-118.2	86.3	-147.1
.205	.300	-101.8	-92.1	.2	-124.2	85.3	-150.1
.221	.350	-100.3	-93.4	.1	-129.4	83.6	-151.8
.232	.400	-99.3	-95.6	-.1	-133.5	81.9	-151.8
.237	.450	-98.7	-99.3	-.4	-136.3	78.9	-151.2
.237	.500	-98.3	-105.7	-.7	-138.0	75.7	-150.1
.232	.550	-98.4	-116.7	-.9	-138.6	71.8	-149.9
.222	.600	-99.2	-135.4	-.4	-138.1	67.3	-147.9
.215	.625	-100.1	-147.9	.7	-137.5	64.7	-147.7
.206	.650	-101.7	-161.8	3.1	-136.5	61.8	-147.8
.197	.675	-104.5	-175.7	9.2	-135.0	58.4	-148.6
.185	.700	-109.9	171.3	27.9	-132.2	54.2	-150.1
.173	.725	-121.0	159.8	92.2	-127.1	49.0	-153.4
.159	.750	-147.0	149.1	133.2	-113.8	41.8	-160.4
.129	.800	137.4	126.2	145.5	13.3	5.9	161.1
.091	.850	118.3	93.7	145.9	29.8	-76.9	116.0
.049	.900	110.2	62.7	139.5	31.2	-102.2	112.2
.012	.950	84.0	16.5	20.5	23.7	-109.1	100.6
.050	1.000	-33.2	-43.2	-35.9	11.5	-142.9	37.5
.103	1.050	-48.3	-41.8	-40.1	-132.6	130.1	-122.6
.171	1.100	-43.8	131.4	-41.8	-130.5	66.9	-125.2
.239	1.150	76.1	142.0	116.4	-103.0	38.0	-98.7
.312	1.200	119.6	178.1	135.2	-19.9	-15.0	-7.9
.391	1.250	134.6	89.1	142.4	35.3	-114.2	39.8
.475	1.300	-157.1	-44.4	177.2	87.4	-145.6	87.2
.558	1.400	-47.7	-29.0	-30.4	-24.3	65.0	-30.5
1.088	1.600	-102.0	-36.0	-66.0	-25.6	-126.1	156.2
1.602	1.800	-113.3	-65.9	94.5	-108.1	-30.1	106.8
2.202	2.000	-90.8	-90.0	145.3	90.0	-37.8	90.0

REC = 5 HEADING = 0. DEG RAO (MOTION/AVEHT)**2 SHIP SPEED = 25. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.143	.200	2.805E+00	1.777E-14	9.565E-01	4.382E-17	2.933E-03	7.474E-18
.163	.250	3.662E+00	2.168E-14	9.138E-01	1.181E-16	7.699E-03	2.750E-17
.182	.300	4.940E+00	2.606E-14	8.433E-01	2.745E-16	1.561E-02	8.495E-17
.199	.350	6.777E+00	3.103E-14	7.428E-01	5.650E-16	2.657E-02	2.213E-16
.190	.400	9.396E+00	3.671E-14	6.144E-01	1.034E-15	3.925E-02	5.027E-16
.184	.450	1.315E+01	4.337E-14	4.668E-01	1.672E-15	5.095E-02	1.006E-15
.172	.500	1.865E+01	5.212E-14	3.149E-01	2.351E-15	5.804E-02	1.757E-15
.153	.550	2.724E+01	6.701E-14	1.783E-01	2.796E-15	5.752E-02	2.572E-15
.128	.600	4.240E+01	1.001E-13	7.809E-02	2.739E-15	4.925E-02	3.303E-15
.112	.625	5.581E+01	1.359E-13	4.395E-02	2.533E-15	4.283E-02	3.359E-15
.096	.650	7.863E+01	2.058E-13	2.084E-02	2.117E-15	3.594E-02	3.128E-15
.077	.675	1.227E+02	3.727E-13	7.772E-03	1.652E-15	2.822E-02	3.030E-15
.057	.700	2.462E+02	9.037E-13	2.673E-03	1.103E-15	2.204E-02	3.015E-15
.035	.725	8.371E+02	4.298E-12	3.360E-03	6.253E-16	1.607E-02	5.443E-15
.012	.750	2.529E+04	1.753E-10	9.004E-03	2.552E-16	1.636E-02	3.826E-14
.040	.800	1.234E+02	1.695E-12	9.408E-03	3.102E-17	2.620E-03	4.739E-15
.093	.850	8.164E+00	3.146E-14	5.975E-03	5.635E-16	8.564E-04	8.869E-16
.163	.900	6.540E-01	2.116E-15	2.007E-03	1.014E-15	2.506E-03	8.372E-16
.234	.950	5.075E-03	1.853E-15	5.212E-05	7.031E-16	2.270E-03	3.393E-16
.312	1.000	2.777E-02	6.872E-16	5.416E-04	2.394E-16	8.387E-04	1.150E-16
.397	1.050	2.015E-02	7.577E-17	1.520E-03	9.747E-16	5.379E-04	1.805E-16
.488	1.100	2.895E-03	7.018E-17	1.095E-03	3.718E-15	1.371E-03	1.596E-16
.586	1.150	3.800E-04	4.675E-17	2.515E-04	1.501E-14	1.162E-03	1.108E-16
.690	1.200	1.464E-03	1.338E-16	4.929E-04	2.808E-14	3.175E-04	1.217E-18
.801	1.250	5.653E-04	2.270E-17	1.190E-03	2.868E-15	7.701E-04	7.804E-18
.913	1.300	3.353E-05	1.922E-17	2.247E-03	7.554E-16	1.476E-03	6.066E-18
1.173	1.400	7.172E-05	3.222E-18	2.467E-04	1.172E-16	6.796E-04	3.251E-18
1.750	1.500	9.838E-07	7.863E-19	1.200E-04	2.143E-18	6.735E-05	2.802E-19
2.451	1.800	1.730E-06	1.569E-19	9.542E-06	1.506E-18	5.547E-06	4.524E-20
3.222	2.000	2.442E-07	1.305E-20	6.728E-07	4.949E-20	2.553E-06	1.542E-20

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.148	.230	-108.5	-91.6	.2	-115.1	84.3	-100.0
.168	.250	-104.0	-91.9	.1	-121.7	83.7	-121.5
.182	.260	-101.4	-92.6	.0	-127.9	83.2	-129.3
.189	.350	-99.8	-93.9	-.1	-133.1	82.0	-132.9
.193	.400	-98.5	-96.1	-.4	-137.2	80.1	-134.3
.184	.450	-97.6	-99.5	-.8	-140.3	77.7	-134.1
.172	.500	-96.8	-104.6	-1.1	-142.5	74.9	-132.3
.153	.550	-95.2	-111.2	-1.0	-144.0	72.4	-128.8
.123	.600	-96.2	-119.4	.2	-145.3	69.0	-123.6
.112	.625	-96.5	-123.0	2.5	-146.0	67.8	-119.4
.095	.650	-97.1	-125.8	7.7	-147.0	67.0	-113.2
.077	.675	-99.0	-128.9	18.7	-148.1	64.9	-103.2
.057	.700	-102.2	-130.8	54.3	-150.4	64.7	-87.3
.035	.725	-109.1	-135.2	104.7	-154.0	64.2	-67.4
.012	.750	-122.9	-144.5	121.0	-153.4	67.4	-61.2
.041	.800	145.9	126.6	135.6	50.8	43.3	-169.1
.093	.850	118.2	94.4	145.0	30.5	-69.5	120.0
.163	.900	109.2	4.5	149.4	32.0	-109.9	72.3
.234	.950	67.7	-23.1	164.3	42.5	-131.9	74.3
.312	1.000	-52.5	-9.3	-32.0	107.5	-167.6	145.4
.397	1.050	-54.4	42.0	-23.3	-150.5	108.4	-153.2
.488	1.100	-45.1	132.1	-7.1	-122.3	64.7	-118.5
.585	1.150	90.3	-170.9	48.9	-73.0	40.6	-71.8
.693	1.200	118.2	157.8	137.7	100.2	-8.8	124.1
.801	1.250	132.3	-114.6	-163.7	-128.4	-97.0	49.9
.913	1.300	-148.4	-54.5	-107.1	-65.4	-118.5	109.6
1.173	1.400	-50.9	73.4	125.8	59.7	120.4	-120.8
1.760	1.500	-101.8	-25.7	57.5	-12.5	-37.9	175.4
2.451	1.600	-124.5	-45.5	9.4	-141.7	-107.2	90.0
3.252	2.000	-96.2	-90.0	95.1	-152.2	-81.1	90.0

REC = 6	HEADING = 15. DEG	SHIP SPEED = 5. KNOTS	RAO (MOTION/HAVENT)**2	SWAY	HEAVE	ROLL	PITCH	YAW
.190	9.877E-01	7.079E-02	9.790E-01	3.894E-04	4.405E-03	2.791E-04		
.234	9.307E-01	6.929E-02	9.484E-01	1.075E-03	1.068E-02	6.867E-04		
.277	8.922E-01	7.638E-02	9.036E-01	2.850E-03	2.174E-02	1.868E-03		
.319	8.243E-01	7.556E-02	8.345E-01	7.105E-03	3.842E-02	3.682E-03		
.359	7.265E-01	6.521E-02	7.306E-01	1.614E-02	5.973E-02	5.713E-03		
.399	5.994E-01	5.042E-02	5.929E-01	3.329E-02	8.241E-02	7.609E-03		
.439	4.521E-01	3.493E-02	4.330E-01	6.196E-02	1.007E-01	8.877E-03		
.473	3.019E-01	2.146E-02	2.722E-01	1.030E-01	1.079E-01	9.022E-03		
.509	1.701E-01	1.159E-02	1.367E-01	1.512E-01	9.885E-02	7.799E-03		
.525	1.171E-01	8.114E-03	8.335E-02	1.741E-01	8.832E-02	6.722E-03		
.543	7.471E-02	5.488E-03	4.683E-02	1.938E-01	7.467E-02	5.432E-03		
.560	4.330E-02	3.540E-03	2.106E-02	2.101E-01	5.915E-02	4.040E-03		
.576	2.224E-02	2.077E-03	6.690E-03	2.273E-01	4.331E-02	2.686E-03		
.592	9.995E-03	9.431E-04	1.305E-03	2.632E-01	2.871E-02	1.528E-03		
.607	4.383E-03	1.562E-04	1.951E-03	3.553E-01	1.693E-02	7.095E-04		
.633	3.442E-03	1.220E-03	1.015E-02	1.436E+00	3.637E-03	1.795E-03		
.667	4.223E-03	6.641E-03	1.358E-02	1.971E+00	3.793E-03	1.715E-03		
.695	2.039E-03	1.703E-03	8.105E-03	6.314E-01	8.893E-03	1.950E-04		
.721	1.298E-04	5.333E-04	1.384E-03	1.434E-01	9.395E-03	5.782E-05		
.747	7.282E-04	5.567E-04	4.732E-04	2.419E-02	4.435E-03	5.778E-05		
.771	1.559E-03	4.164E-04	2.918E-03	2.697E-02	1.191E-03	8.294E-05		
.793	7.637E-04	2.114E-04	2.710E-03	2.926E-02	2.955E-03	1.049E-04		
.815	1.669E-05	2.503E-04	6.015E-04	1.571E-02	4.093E-03	7.611E-05		
.835	4.640E-04	2.707E-04	7.110E-04	1.119E-02	1.557E-03	6.634E-05		
.854	6.213E-04	1.557E-04	1.649E-03	1.328E-02	6.771E-04	8.887E-05		
.872	1.184E-04	1.683E-04	9.111E-04	9.697E-03	2.386E-03	6.873E-05		
.903	2.866E-04	1.168E-04	9.518E-04	8.220E-03	2.885E-04	7.045E-05		
.951	1.309E-05	1.120E-04	2.373E-04	2.713E-03	1.097E-03	3.744E-05		
.979	1.014E-05	3.529E-05	1.389E-04	1.978E-03	2.357E-04	3.609E-05		
.986	4.521E-05	2.102E-05	1.553E-05	6.157E-04	2.222E-04	1.507E-05		

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190.	.200	-109.7	90.0	.1	78.4	91.5	7.2
.234	.250	-105.4	90.0	.1	73.1	89.5	8.4
.277	.300	-103.3	91.6	-0	67.4	87.5	7.3
.319	.350	-102.2	92.2	-2	62.2	85.5	9.7
.359	.400	-101.7	91.7	-2	58.9	83.5	13.8
.399	.450	-101.6	90.3	0	57.7	81.2	18.3
.437	.500	-101.9	87.8	.4	59.0	78.6	23.4
.473	.550	-102.8	83.6	1.2	62.9	75.4	29.2
.509	.600	-104.9	76.6	2.7	70.3	71.4	36.3
.526	.625	-106.6	71.9	4.1	75.9	69.0	40.8
.543	.650	-109.3	66.3	6.4	83.6	65.1	46.2
.560	.675	-113.4	60.2	10.7	94.0	62.6	53.3
.576	.700	-120.4	54.1	21.0	109.8	58.3	63.4
.592	.725	-133.1	48.0	59.4	129.8	52.6	80.1
.607	.750	-156.8	29.0	132.6	159.9	44.5	114.3
.638	.800	140.5	-81.3	160.8	-118.7	6.3	-121.4
.667	.850	116.3	-21.7	166.6	-28.0	-74.5	-39.7
.695	.900	104.8	22.9	170.8	19.4	-106.1	-22.7
.721	.950	64.5	84.9	-178.5	54.0	-123.7	-52.0
.747	1.000	-50.7	138.5	-34.3	116.3	-145.9	-32.7
.771	1.050	-57.3	175.1	-13.9	-165.1	150.5	12.5
.793	1.100	-54.5	-131.5	-2.4	-128.5	82.0	50.0
.815	1.150	15.5	-69.7	31.2	-82.4	56.9	93.4
.835	1.200	112.9	-28.2	134.6	-17.2	28.3	155.8
.854	1.250	123.5	23.3	167.3	35.3	-71.4	-152.5
.872	1.300	149.3	92.0	-158.5	-83.8	-117.1	-105.0
.903	1.400	-61.8	-164.7	-28.6	-155.5	123.0	23.1
.951	1.600	-160.7	103.7	-139.5	97.5	-131.9	-80.9
.979	1.800	117.9	37.9	128.4	26.2	-71.8	-149.1
.986	2.000	124.4	-26.7	124.7	4.7	-37.3	-172.6

REC = 7 HEADING = 15. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	1.233E+00	8.106E-02	9.735E-01	3.741E-04	4.001E-03	2.614E-04
.219	.250	1.235E+00	8.138E-02	9.395E-01	1.008E-03	9.813E-03	6.992E-04
.254	.300	1.248E+00	8.180E-02	8.834E-01	2.424E-03	1.976E-02	1.692E-03
.288	.350	1.231E+00	8.656E-02	8.090E-01	5.727E-03	3.490E-02	4.153E-03
.319	.400	1.163E+00	7.925E-02	7.015E-01	1.226E-02	5.371E-02	7.253E-03
.347	.450	1.031E+00	6.451E-02	5.641E-01	2.342E-02	7.292E-02	1.055E-02
.373	.500	8.384E-01	4.656E-02	4.089E-01	3.889E-02	8.734E-02	1.327E-02
.397	.550	6.059E-01	2.938E-02	2.564E-01	5.483E-02	9.139E-02	1.439E-02
.417	.600	3.709E-01	1.612E-02	1.297E-01	6.332E-02	8.181E-02	1.312E-02
.427	.625	2.685E-01	1.149E-02	8.176E-02	6.215E-02	7.221E-02	1.156E-02
.436	.650	1.776E-01	8.199E-03	4.564E-02	5.682E-02	6.032E-02	9.518E-03
.444	.675	1.075E-01	6.063E-03	2.114E-02	4.805E-02	4.721E-02	7.195E-03
.451	.700	5.751E-02	4.801E-03	7.058E-03	3.773E-02	3.415E-02	4.863E-03
.458	.725	2.665E-02	4.076E-03	1.283E-03	2.866E-02	2.237E-02	2.804E-03
.465	.750	1.183E-02	3.567E-03	1.187E-03	2.400E-02	1.291E-02	1.273E-03
.473	.800	1.063E-02	2.360E-03	7.388E-03	3.573E-02	2.805E-03	2.672E-04
.484	.850	1.580E-02	8.110E-04	9.870E-03	6.656E-02	2.609E-03	1.360E-03
.489	.900	8.979E-03	1.119E-05	5.613E-03	7.895E-02	5.362E-03	2.393E-03
.492	.950	7.006E-04	4.735E-04	8.343E-04	5.099E-02	5.196E-03	1.928E-03
.493	1.000	3.121E-03	1.056E-02	2.977E-04	1.891E-02	2.355E-03	9.254E-04
.491	1.050	8.911E-03	6.467E-04	1.812E-03	1.362E-02	7.300E-04	9.956E-04
.486	1.100	5.644E-03	8.912E-05	1.495E-03	2.654E-02	1.364E-03	1.609E-03
.479	1.150	2.753E-04	4.851E-04	1.537E-04	2.154E-02	1.636E-03	1.338E-03
.470	1.200	4.036E-03	7.816E-04	2.837E-04	1.202E-02	6.302E-04	8.971E-04
.459	1.250	7.323E-03	2.496E-04	8.252E-04	1.405E-02	2.732E-04	1.357E-03
.443	1.300	2.242E-03	4.945E-04	2.798E-04	1.277E-02	7.079E-04	1.416E-03
.406	1.400	6.657E-03	3.163E-04	4.117E-04	8.877E-03	9.204E-05	1.415E-03
.302	1.600	1.924E-03	2.101E-03	3.598E-05	1.370E-03	1.514E-04	1.239E-03
.157	1.800	2.187E-02	2.976E-03	6.408E-05	5.801E-04	2.223E-05	6.192E-03
.029	2.000	4.009E+01	1.107E+01	2.790E-05	2.617E-04	2.962E-05	2.209E-02

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	-109.6	89.6	.1	75.9	90.4	12.7
.213	.250	-105.2	89.6	.2	70.5	88.8	13.0
.254	.300	-102.9	89.7	.2	65.0	87.2	13.1
.289	.350	-101.8	90.5	.0	59.8	84.9	13.2
.319	.400	-101.2	89.9	-.1	56.0	82.6	15.8
.347	.450	-101.0	89.0	-.2	54.2	80.1	19.3
.373	.500	-101.2	84.6	-.3	54.5	77.0	23.4
.397	.550	-102.0	78.6	-.1	57.0	73.3	27.9
.417	.600	-103.8	68.0	.5	62.3	68.6	33.1
.427	.625	-105.4	68.0	1.2	66.4	55.8	36.2
.436	.650	-107.8	49.8	2.6	72.0	62.5	39.6
.444	.675	-111.7	37.4	5.5	79.8	58.6	43.8
.451	.700	-118.3	23.8	12.9	91.0	53.7	49.0
.453	.725	-130.4	11.6	41.8	107.6	47.5	56.2
.465	.750	-154.2	-.9	123.5	130.7	38.7	68.3
.475	.800	140.8	-17.4	155.0	178.9	-.7	156.1
.484	.850	117.4	-28.8	157.7	-152.7	-79.4	-145.8
.489	.900	107.5	-81.4	156.4	-133.8	-113.7	-125.4
.492	.950	80.1	155.5	150.8	-113.6	-134.3	-103.3
.493	1.000	-51.2	154.8	-16.7	-73.4	-150.6	-61.1
.491	1.050	-56.6	162.2	-25.7	7.8	136.0	3.6
.486	1.100	-52.2	-138.1	-29.6	51.0	69.6	44.7
.479	1.150	3.2	-58.3	-30.9	85.5	39.2	81.2
.470	1.200	111.3	-34.4	139.8	141.2	4.8	139.6
.453	1.250	123.1	6.3	137.9	-158.6	-87.0	-162.1
.443	1.300	152.2	102.8	137.1	-113.5	-139.7	-119.9
.405	1.400	-60.6	170.6	-60.8	4.9	105.0	9.2
.302	1.600	-174.6	117.9	86.9	-127.3	-164.0	-117.8
.157	1.800	125.6	135.3	91.0	-160.0	-62.7	-156.1
.029	2.000	151.4	-77.2	130.2	-134.8	1.7	-21.1

REC = 8 HEADING = 15. DEG SHIP SPEED = 15. KNOTS

RAO (NOTION/NAVEHT)**2 RAO PITCH YAW

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	1.534E+00	9.570E-02	9.600E-01	3.692E-04	3.584E-03	1.921E-04
.202	.250	1.657E+00	9.809E-02	9.301E-01	9.806E-04	8.908E-03	5.735E-04
.232	.300	1.803E+00	1.006E-01	8.699E-01	2.284E-03	1.799E-02	1.477E-03
.257	.350	1.925E+00	1.011E-01	7.827E-01	4.900E-03	3.114E-02	3.534E-03
.273	.400	1.994E+00	9.830E-02	6.716E-01	9.935E-03	4.770E-02	7.649E-03
.296	.450	1.936E+00	8.489E-02	5.334E-01	1.781E-02	6.404E-02	1.286E-02
.310	.500	1.749E+00	6.502E-02	3.814E-01	2.746E-02	7.552E-02	1.826E-02
.320	.550	1.420E+00	4.405E-02	2.355E-01	3.539E-02	7.754E-02	2.220E-02
.326	.600	9.903E-01	2.750E-02	1.172E-01	3.668E-02	6.794E-02	2.272E-02
.328	.625	7.640E-01	2.213E-02	7.348E-02	3.379E-02	5.929E-02	2.127E-02
.328	.650	5.488E-01	1.885E-02	4.033E-02	2.871E-02	4.893E-02	1.865E-02
.328	.675	3.592E-01	1.736E-02	1.850E-02	2.217E-02	3.783E-02	1.509E-02
.327	.700	2.079E-01	1.703E-02	6.075E-03	1.580E-02	2.702E-02	1.098E-02
.325	.725	1.030E-01	1.702E-02	1.057E-03	9.445E-03	1.747E-02	6.851E-03
.322	.750	4.625E-02	1.644E-02	9.617E-04	5.745E-03	9.930E-03	3.323E-03
.313	.800	4.824E-02	1.145E-02	5.942E-03	6.432E-03	2.005E-03	3.439E-05
.300	.850	1.015E-01	3.200E-03	7.494E-03	1.307E-02	1.602E-03	2.262E-03
.284	.900	8.854E-02	2.539E-04	3.852E-03	1.496E-02	3.300E-03	5.792E-03
.264	.950	1.686E-02	6.833E-03	4.232E-04	8.723E-03	3.111E-03	5.246E-03
.239	1.000	2.926E-02	1.320E-02	3.362E-04	1.827E-03	1.373E-03	1.649E-03
.211	1.050	2.021E-01	7.355E-03	1.325E-03	1.655E-04	3.734E-04	1.256E-03
.183	1.100	3.046E-01	2.000E-03	9.166E-04	1.715E-03	6.580E-04	7.512E-03
.144	1.150	7.008E-02	5.332E-02	6.485E-05	1.455E-03	8.870E-04	1.043E-02
.105	1.200	8.387E-01	1.590E-01	2.404E-04	2.001E-04	4.477E-04	2.063E-03
.062	1.250	1.810E+01	9.302E-02	5.461E-04	6.462E-04	1.260E-04	7.752E-03
.015	1.300	2.393E+03	3.426E+01	1.464E-04	7.808E-04	3.519E-04	7.689E-02
.091	1.400	2.207E+00	6.433E-03	2.965E-04	1.019E-03	8.171E-05	6.871E-03
.347	1.600	1.098E-03	1.714E-03	4.089E-05	2.389E-03	1.536E-04	9.746E-04
.664	1.800	5.007E-05	4.114E-04	1.032E-04	2.394E-01	7.721E-05	2.333E-04
1.043	2.000	3.588E-05	1.264E-05	2.685E-05	4.101E-04	1.876E-04	1.232E-05

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	-109.4	89.2	.2	72.6	88.9	21.6
.202	.250	-104.9	89.1	.2	66.9	88.0	20.5
.232	.300	-102.5	88.6	.2	61.3	86.5	19.3
.257	.350	-101.2	88.2	.2	56.3	84.6	19.0
.275	.400	-101.5	87.3	-.1	52.3	82.0	19.8
.295	.450	-100.2	84.7	-.4	50.1	79.2	22.1
.313	.500	-100.2	79.8	-.7	49.6	75.9	25.0
.323	.550	-100.7	71.1	-1.0	51.0	72.0	28.5
.326	.600	-102.2	55.9	-.9	54.5	67.1	32.3
.328	.625	-103.5	45.2	-.5	57.3	64.2	34.4
.329	.650	-105.5	32.8	.5	61.2	60.9	36.6
.323	.675	-108.8	19.9	3.0	66.7	57.0	39.0
.327	.700	-114.5	8.1	9.8	75.1	52.3	41.7
.325	.725	-125.4	-1.7	37.8	89.7	46.3	44.9
.322	.750	-148.0	-9.3	120.9	111.4	37.9	49.0
.313	.800	141.6	-19.4	151.0	172.0	.9	114.6
.300	.850	117.9	-26.6	152.4	-153.5	-80.0	-131.1
.284	.900	109.6	171.7	149.3	-144.9	-114.5	-121.4
.264	.950	94.7	156.9	138.1	-136.2	-133.5	-112.4
.239	1.000	-45.2	153.8	-20.3	-126.8	-157.1	-93.5
.211	1.050	-53.1	158.2	-33.2	10.7	143.7	11.7
.190	1.100	-49.1	-66.9	-41.6	45.7	75.5	45.6
.144	1.150	-23.5	-43.3	-63.6	59.6	48.2	57.6
.105	1.200	117.4	-44.0	140.9	106.8	23.1	77.2
.062	1.250	133.6	-53.7	126.4	-151.4	-42.7	-130.9
.015	1.300	151.3	115.2	95.8	-132.4	-100.3	-141.0
.091	1.400	-55.3	119.6	-64.8	7.5	156.8	32.5
.347	1.500	-171.9	121.6	97.2	-123.9	-164.4	-112.1
.664	1.600	115.3	-45.3	110.2	-50.5	-101.2	-80.8
1.043	2.000	124.5	-19.7	52.3	6.9	-30.6	-168.5

REC = 9 HEADING = 15. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	1.951E+00	1.182E-01	9.628E-01	3.755E-04	3.150E-03	1.071E-04
.187	.250	2.281E+00	1.300E-01	9.231E-01	9.989E-04	8.028E-03	3.936E-04
.209	.300	2.710E+00	1.395E-01	8.587E-01	2.304E-03	1.626E-02	1.142E-03
.226	.350	3.199E+00	1.448E-01	7.665E-01	4.761E-03	2.798E-02	2.774E-03
.233	.400	3.694E+00	1.427E-01	6.449E-01	8.810E-03	4.180E-02	5.684E-03
.245	.450	4.115E+00	1.321E-01	5.015E-01	1.445E-02	5.506E-02	1.027E-02
.246	.500	4.747E+00	1.130E-01	3.508E-01	2.066E-02	6.400E-02	1.654E-02
.243	.550	4.255E+00	8.974E-02	2.117E-01	2.511E-02	6.506E-02	2.366E-02
.235	.600	3.727E+00	6.708E-02	1.034E-01	2.500E-02	5.669E-02	2.953E-02
.229	.625	3.289E+00	5.062E-02	6.278E-02	2.271E-02	4.944E-02	3.101E-02
.221	.650	2.749E+00	5.880E-02	3.395E-02	1.905E-02	4.083E-02	3.099E-02
.213	.675	2.137E+00	6.232E-02	1.435E-02	1.447E-02	3.176E-02	2.919E-02
.203	.700	1.502E+00	7.096E-02	4.681E-03	9.603E-03	2.292E-02	2.561E-02
.192	.725	9.142E-01	8.458E-02	9.474E-04	5.257E-03	1.510E-02	2.072E-02
.179	.750	4.735E-01	1.013E-01	1.335E-03	2.069E-03	8.855E-03	1.502E-02
.151	.800	6.037E-01	1.289E-01	5.997E-03	5.019E-04	1.841E-03	5.828E-03
.117	.850	3.842E+00	1.534E-01	6.946E-03	4.145E-03	7.552E-04	7.540E-03
.078	.900	1.702E+01	3.789E-01	3.299E-03	7.447E-03	1.873E-03	2.222E-02
.035	.950	1.333E+02	6.347E+00	2.298E-04	5.955E-03	2.141E-03	4.289E-02
.014	1.000	1.215E+03	3.806E+02	8.409E-04	2.044E-03	1.749E-03	2.015E-01
.063	1.050	1.513E+01	7.134E-01	1.415E-03	1.174E-04	3.159E-04	1.236E-03
.127	1.100	1.199E+00	7.415E-03	8.620E-04	1.733E-03	5.322E-04	8.483E-03
.191	1.150	2.040E-02	2.133E-02	5.835E-05	2.001E-03	8.582E-04	4.400E-03
.261	1.200	3.174E-02	6.135E-03	2.133E-04	1.169E-03	3.710E-04	9.323E-04
.335	1.250	2.445E-02	8.496E-04	6.423E-04	5.059E-03	1.622E-04	2.156E-03
.414	1.300	2.978E-03	1.274E-03	3.127E-04	1.093E-02	5.798E-04	1.499E-03
.588	1.400	1.589E-03	3.558E-05	3.994E-04	1.319E-01	1.045E-04	9.395E-04
.997	1.600	1.076E-05	8.130E-05	9.692E-04	1.803E-03	7.820E-04	3.098E-05
1.486	1.800	1.610E-06	6.436E-06	1.038E-04	1.083E-04	5.737E-05	6.925E-06
2.059	2.000	1.744E-06	7.394E-07	2.139E-05	8.796E-05	1.701E-05	9.663E-07

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	-109.3	88.8	.2	68.9	86.9	39.3
.187	.250	-104.7	88.6	.2	62.9	86.3	32.5
.209	.300	-102.2	88.0	.2	57.1	85.3	29.1
.226	.350	-100.7	86.9	.1	51.9	83.5	27.6
.233	.400	-99.7	84.8	-.1	47.9	81.6	27.6
.245	.450	-99.1	81.4	-.4	44.9	79.1	28.2
.246	.500	-98.7	75.7	-.7	43.2	76.0	29.2
.243	.550	-98.8	65.9	-1.1	42.4	72.2	30.4
.235	.600	-99.5	49.3	-1.0	42.7	67.7	31.5
.229	.625	-100.3	37.7	-.4	43.3	65.1	31.9
.221	.650	-101.6	24.3	1.0	44.3	62.2	32.1
.213	.675	-103.9	10.4	4.4	45.7	58.9	31.8
.203	.700	-107.9	-2.7	14.2	47.9	55.2	30.7
.192	.725	-115.8	-14.5	51.9	51.9	50.4	28.5
.179	.750	-133.5	-25.0	121.0	61.6	44.0	24.2
.151	.800	147.8	-45.8	146.3	173.4	17.9	-3.7
.117	.850	120.2	-75.0	147.1	-153.5	-62.1	-64.1
.078	.900	111.9	-119.2	142.0	-143.8	-101.4	-83.2
.035	.950	98.6	-155.7	110.0	-151.1	-110.4	-80.9
.014	1.000	-46.2	147.8	-31.1	-165.4	-119.3	-124.3
.068	1.050	-48.0	129.6	-40.6	83.8	177.6	156.4
.127	1.100	-19.8	-47.3	-43.5	45.4	82.9	54.0
.191	1.150	112.1	-42.5	-45.8	60.9	49.4	64.0
.261	1.200	126.1	-25.5	134.5	120.5	15.2	131.7
.335	1.250	152.1	49.6	135.4	-164.2	-84.2	-157.1
.414	1.300	152.1	120.5	149.1	-117.0	-135.5	-117.1
.588	1.400	-61.2	-16.5	-49.2	20.0	109.2	16.2
.997	1.600	-161.7	112.5	-112.5	97.9	-125.5	-74.3
1.485	1.800	135.5	74.4	139.4	39.1	9.3	-129.7
2.053	2.000	91.6	126.2	-152.6	-26.1	20.0	-158.9

PHASE (MOIION-HAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	-109.1	89.4	.2	55.9	84.1	78.3
.171	.250	-104.5	83.1	.1	59.5	83.5	56.4
.186	.300	-101.8	87.5	.0	53.4	83.2	49.1
.195	.350	-100.1	86.3	.1	48.2	82.1	45.5
.197	.400	-98.9	84.2	.4	44.0	80.3	43.9
.193	.450	-98.0	81.0	.8	40.8	77.9	43.7
.183	.500	-97.3	76.1	-1.3	38.5	75.0	44.8
.167	.550	-96.8	69.1	-1.5	36.8	72.0	47.1
.144	.600	-96.6	63.4	.5	35.5	69.1	50.6
.130	.625	-96.9	55.3	.5	34.9	67.2	52.8
.114	.650	-97.4	50.6	3.6	34.1	65.8	55.8
.097	.675	-98.5	46.8	11.3	32.9	65.1	59.7
.079	.700	-101.2	41.9	29.4	31.6	62.8	66.5
.053	.725	-105.8	37.6	80.0	28.8	62.2	76.7
.037	.750	-116.2	29.7	117.4	23.7	62.0	90.7
.012	.800	176.1	-27.2	128.9	-33.1	.57.1	53.0
.066	.850	122.1	-75.7	140.7	-145.5	-25.8	-27.8
.127	.900	111.3	-136.3	145.9	-149.0	-101.5	-96.5
.194	.950	97.5	160.3	151.3	-143.1	-124.4	-110.7
.268	1.000	-46.8	160.6	-33.3	-114.1	-152.3	-73.3
.343	1.050	-55.6	-167.2	-27.8	.2	139.3	11.7
.434	1.100	-51.9	-72.7	-17.7	46.1	74.4	48.9
.527	1.150	5.3	-25.2	11.7	87.7	48.4	86.5
.625	1.200	111.4	-170.7	110.0	-171.5	17.2	174.1
.731	1.250	123.9	16.6	168.9	10.6	-73.9	-132.8
.842	1.300	150.6	103.8	-137.8	76.3	-114.6	-98.0
1.035	1.400	-32.7	-149.2	-11.6	-151.2	144.5	32.7
1.245	1.500	-175.3	122.5	50.1	113.4	-40.1	-52.9
2.066	1.600	-118.0	142.5	43.6	31.0	-95.4	-132.6
3.073	2.000	53.8	7.1	179.5	-71.2	-41.5	-166.4

REC = 11

HEADING = 30. DEG
RAOSHIP SPEED = 5. KNOTS
(MOTION/WAVEHT)**2

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.191	.200	8.044E-01	2.620E-01	9.430E-01	1.448E-03	3.524E-03	8.315E-04
.236	.250	7.568E-01	2.574E-01	9.581E-01	3.966E-03	8.600E-03	2.042E-03
.280	.300	7.192E-01	2.895E-01	9.239E-01	1.043E-02	1.774E-02	5.719E-03
.322	.350	6.698E-01	2.903E-01	8.697E-01	2.556E-02	3.187E-02	1.126E-02
.364	.400	6.011E-01	2.570E-01	7.846E-01	5.815E-02	5.068E-02	1.765E-02
.404	.450	5.120E-01	2.074E-01	6.666E-01	1.228E-01	7.225E-02	2.410E-02
.443	.500	4.064E-01	1.533E-01	5.213E-01	2.408E-01	9.251E-02	2.936E-02
.481	.550	2.935E-01	1.036E-01	3.640E-01	4.372E-01	1.057E-01	3.200E-02
.518	.600	1.867E-01	6.391E-02	2.164E-01	7.371E-01	1.065E-01	3.084E-02
.556	.625	1.399E-01	4.866E-02	1.535E-01	9.328E-01	1.012E-01	2.871E-02
.594	.650	9.947E-02	3.634E-02	1.009E-01	1.155E+00	9.221E-02	2.561E-02
.632	.675	6.631E-02	2.648E-02	5.981E-02	1.443E+00	8.020E-02	2.167E-02
.669	.700	4.088E-02	1.835E-02	3.055E-02	1.794E+00	6.608E-02	1.709E-02
.707	.725	2.203E-02	1.075E-02	1.234E-02	2.202E+00	5.139E-02	1.167E-02
.745	.750	1.136E-02	3.308E-03	3.236E-03	2.600E+00	3.731E-02	5.704E-03
.783	.800	2.719E-03	7.677E-03	3.165E-03	3.133E+00	1.421E-02	1.099E-03
.821	.850	2.945E-03	1.401E-02	1.162E-02	2.127E+00	3.452E-03	1.228E-03
.859	.900	3.224E-03	6.802E-03	1.429E-02	1.292E+00	4.754E-03	2.236E-04
.897	.950	1.514E-03	2.053E-03	8.620E-03	6.175E-01	1.010E-02	2.528E-04
.935	1.000	1.250E-04	1.164E-03	1.782E-03	1.386E-01	1.072E-02	3.240E-04
.973	1.050	4.611E-04	1.588E-03	3.866E-04	3.974E-02	5.594E-03	2.699E-04
.1.011	1.100	1.121E-03	1.238E-03	2.738E-03	4.800E-02	1.553E-03	3.612E-04
.1.049	1.150	7.179E-04	5.697E-04	3.174E-03	6.042E-02	2.901E-03	4.546E-04
.1.087	1.200	5.253E-05	6.270E-04	1.239E-03	3.727E-02	4.950E-03	3.371E-04
.1.125	1.250	1.809E-04	8.587E-04	6.512E-04	2.309E-02	2.846E-03	2.395E-04
.1.163	1.300	4.676E-04	5.547E-04	1.447E-03	2.848E-02	6.087E-04	3.167E-04
.1.201	1.350	1.682E-05	5.867E-04	8.223E-04	1.541E-02	2.622E-03	1.919E-04
.1.239	1.400	5.242E-05	2.648E-04	7.237E-04	8.306E-03	5.160E-04	1.468E-04
.1.277	1.450	1.267E-06	1.609E-04	1.590E-05	2.707E-03	6.314E-04	7.739E-05
.1.315	1.500	1.841E-05	6.384E-05	9.746E-05	1.345E-03	2.895E-04	6.645E-05

PHASE (MOTION-AVENT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.191	.200	-111.5	90.0	.1	79.7	91.9	6.9
.236	.250	-106.7	90.0	.1	74.9	90.0	8.1
.280	.300	-104.4	91.7	-1	69.6	87.9	6.1
.322	.350	-103.3	92.2	-2	64.4	86.0	8.3
.364	.400	-102.7	91.9	-3	60.8	84.2	12.2
.404	.450	-102.5	90.8	-1	59.2	82.2	16.6
.443	.500	-102.8	88.9	.1	59.7	79.9	21.4
.481	.550	-103.5	85.7	.7	62.7	77.1	26.9
.518	.600	-105.0	81.0	1.6	68.7	73.8	33.5
.536	.625	-106.2	78.1	2.3	73.4	71.7	37.6
.554	.650	-107.3	75.1	3.4	79.6	69.5	42.6
.571	.675	-110.3	72.4	5.0	88.1	66.8	49.0
.583	.700	-113.9	71.5	7.8	100.0	63.7	57.8
.606	.725	-119.6	74.7	13.6	118.1	59.9	71.3
.622	.750	-129.8	87.0	30.4	146.8	55.1	94.8
.655	.800	-173.6	-64.3	145.5	-113.0	39.5	-101.9
.686	.850	132.9	-21.9	163.9	-30.5	-4.8	-30.4
.716	.900	112.9	.5	169.5	9.0	-76.8	-43.4
.745	.950	101.5	33.8	174.9	32.8	-105.1	-90.1
.773	1.000	63.9	95.8	-172.0	60.0	-121.7	-80.8
.800	1.050	-50.2	137.7	-46.7	117.5	-141.8	-41.0
.825	1.100	-60.0	167.2	-12.7	-168.5	165.7	7.4
.850	1.150	-60.3	-146.1	2.1	-131.4	93.1	43.1
.873	1.200	-45.7	-81.3	30.8	-93.6	66.2	80.8
.895	1.250	107.3	-41.6	111.0	-34.4	44.0	137.6
.916	1.300	115.8	-2.4	161.4	19.9	-24.0	-168.3
.935	1.400	-137.0	118.4	-103.7	118.5	-122.5	-70.7
1.018	1.600	95.3	-22.5	122.7	-5.0	19.4	177.0
1.064	1.800	-47.7	-98.8	51.4	-119.5	79.2	72.3
1.091	2.000	-67.9	162.0	-92.4	-179.1	159.1	16.1

REC = 12

HEADING = 30. DEG SHIP SPEED = 10. KNOTS
PAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	9.726E-01	2.956E-01	9.778E-01	1.395E-03	3.174E-03	7.766E-04
.222	.250	9.644E-01	2.971E-01	9.497E-01	3.737E-03	7.867E-03	2.058E-03
.259	.300	9.667E-01	3.034E-01	9.050E-01	8.992E-03	1.612E-02	5.323E-03
.294	.350	9.536E-01	3.284E-01	8.456E-01	2.105E-02	2.903E-02	1.269E-02
.327	.400	9.083E-01	3.067E-01	7.564E-01	4.341E-02	4.583E-02	2.201E-02
.359	.450	8.229E-01	2.590E-01	6.373E-01	8.910E-02	6.443E-02	3.236E-02
.386	.500	6.964E-01	1.986E-01	4.953E-01	1.565E-01	8.104E-02	4.193E-02
.412	.550	5.377E-01	1.367E-01	3.451E-01	2.418E-01	9.082E-02	4.808E-02
.435	.600	3.666E-01	8.348E-02	2.064E-01	3.203E-01	8.958E-02	4.809E-02
.447	.625	2.847E-01	6.231E-02	1.476E-01	3.443E-01	8.428E-02	4.527E-02
.458	.650	2.099E-01	4.531E-02	9.819E-02	3.510E-01	7.639E-02	4.062E-02
.468	.675	1.452E-01	3.242E-02	5.934E-02	3.369E-01	6.557E-02	3.441E-02
.477	.700	9.278E-02	2.328E-02	3.122E-02	3.025E-01	5.355E-02	2.718E-02
.486	.725	5.764E-02	1.714E-02	1.312E-02	2.536E-01	4.105E-02	1.961E-02
.494	.750	2.755E-02	1.355E-02	3.581E-03	2.020E-01	2.916E-02	1.255E-02
.509	.800	7.031E-03	8.834E-03	1.626E-03	1.578E-01	1.084E-02	2.848E-03
.521	.850	8.959E-03	5.327E-03	7.620E-03	2.824E-01	2.787E-03	1.415E-03
.532	.900	1.116E-02	1.998E-03	9.415E-03	5.257E-01	3.079E-03	5.662E-03
.540	1.000	5.433E-03	4.205E-04	5.403E-03	6.377E-01	5.605E-03	8.886E-03
.545	1.050	5.619E-04	1.102E-03	9.443E-04	4.463E-01	5.460E-03	7.081E-03
.549	1.100	1.676E-03	2.066E-03	1.810E-04	1.604E-01	2.722E-03	3.369E-03
.550	1.150	5.356E-03	1.482E-03	1.622E-03	1.135E-01	9.147E-04	2.979E-03
.549	1.200	4.209E-03	1.626E-04	1.734E-03	2.357E-01	1.296E-03	4.994E-03
.545	1.250	4.970E-04	3.641E-04	4.226E-04	2.280E-01	1.845E-03	4.723E-03
.540	1.300	1.178E-03	1.335E-03	7.384E-05	1.245E-01	1.036E-03	2.830E-03
.532	1.350	3.890E-03	7.315E-04	7.362E-04	1.141E-01	2.846E-04	3.296E-03
.509	1.400	3.126E-04	1.476E-03	2.484E-05	8.008E-02	7.180E-04	2.878E-03
.436	1.600	1.625E-03	1.801E-03	1.019E-04	2.321E-02	1.273E-04	2.312E-03
.327	1.900	3.915E-04	2.812E-03	6.982E-05	8.672E-03	5.531E-05	4.528E-03
.181	2.000	1.215E-02	4.103E-03	1.857E-05	4.727E-04	1.490E-05	7.199E-03

PHASE (MOTION-WAVEVENT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	-111.4	89.7	.1	77.5	90.6	12.3
.222	.250	-106.5	89.6	.2	72.6	89.1	12.5
.253	.300	-104.1	90.2	.2	67.4	87.4	11.7
.294	.350	-102.9	90.9	-.1	62.3	85.3	11.7
.327	.400	-102.2	90.5	-.2	58.2	83.2	14.2
.358	.450	-102.0	89.0	-.3	56.0	80.9	17.6
.386	.500	-102.2	86.5	-.4	55.5	78.3	21.4
.412	.550	-102.8	82.3	-.5	57.1	75.0	25.6
.435	.600	-104.1	75.5	-.3	60.8	71.0	30.3
.447	.625	-105.2	70.5	-.1	63.7	68.6	33.0
.458	.650	-106.7	64.1	.3	67.4	65.9	35.9
.463	.675	-109.0	56.0	1.0	72.4	62.8	39.2
.477	.700	-112.4	45.9	2.6	79.2	59.1	43.0
.485	.725	-117.8	34.1	6.1	88.6	54.8	47.7
.494	.750	-127.1	21.2	16.1	102.0	49.3	53.9
.509	.800	-173.0	-3.8	140.3	145.3	32.0	80.2
.521	.850	133.2	-25.0	158.0	-171.1	-11.8	174.2
.532	.900	114.4	-48.4	159.4	-145.6	-81.0	-143.9
.540	.950	104.9	-109.0	157.7	-127.4	-113.3	-125.0
.545	1.000	78.9	178.1	152.2	-107.8	-134.0	-104.4
.549	1.050	-51.5	157.9	-10.3	-71.6	-159.0	-66.6
.550	1.100	-59.6	149.8	-22.5	4.7	147.3	-3.5
.549	1.150	-58.1	152.4	-26.1	50.7	79.0	39.2
.545	1.200	-39.2	-47.7	-27.6	81.8	45.8	71.8
.540	1.250	102.4	-42.3	137.9	127.0	16.5	119.7
.532	1.300	116.0	-31.3	140.9	-172.2	-49.8	-179.0
.509	1.400	-149.3	123.3	154.4	-80.6	-157.4	-91.5
.436	1.600	89.6	-43.0	113.3	150.0	-29.2	154.0
.327	1.800	-57.0	-72.6	-104.1	20.8	25.0	39.1
.181	2.000	-54.0	92.7	-70.4	-12.1	123.7	19.8

REC = 13

HEADING = 30. DEG
RAOSHIP SPEED = 15. KNOTS
(MOTION/NAVENT)**2

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	1.187E+00	3.420E-01	9.726E-01	1.375E-03	2.817E-03	5.804E-04
.207	.250	1.248E+00	3.526E-01	9.411E-01	3.629E-03	7.106E-03	1.709E-03
.239	.300	1.332E+00	3.567E-01	8.899E-01	8.395E-03	1.453E-02	4.237E-03
.266	.350	1.406E+00	3.764E-01	8.209E-01	1.831E-02	2.598E-02	1.148E-02
.291	.400	1.441E+00	3.709E-01	7.276E-01	3.759E-02	4.092E-02	2.377E-02
.312	.450	1.413E+00	3.299E-01	6.057E-01	6.964E-02	5.701E-02	3.942E-02
.330	.500	1.302E+00	2.654E-01	4.663E-01	1.139E-01	7.073E-02	5.647E-02
.344	.550	1.104E+00	1.918E-01	3.213E-01	1.608E-01	7.792E-02	7.106E-02
.355	.600	8.334E-01	1.246E-01	1.900E-01	1.906E-01	7.537E-02	7.791E-02
.359	.625	6.837E-01	9.780E-02	1.338E-01	1.922E-01	7.015E-02	7.688E-02
.362	.650	5.338E-01	7.703E-02	8.934E-02	1.824E-01	6.262E-02	7.239E-02
.364	.675	3.921E-01	6.257E-02	5.367E-02	1.616E-01	5.332E-02	6.451E-02
.366	.700	2.655E-01	5.390E-02	2.805E-02	1.321E-01	4.299E-02	5.377E-02
.367	.725	1.643E-01	4.968E-02	1.159E-02	9.854E-02	3.251E-02	4.114E-02
.366	.750	8.898E-02	4.797E-02	3.124E-03	6.699E-02	2.274E-02	2.804E-02
.364	.800	2.283E-02	4.337E-02	1.291E-03	3.115E-02	8.125E-03	6.871E-03
.357	.850	3.575E-02	2.810E-02	6.285E-03	4.693E-02	1.881E-03	6.169E-04
.348	.900	5.921E-02	7.368E-03	7.517E-03	8.473E-02	1.940E-03	9.113E-03
.335	.950	4.416E-02	5.953E-04	4.032E-03	9.226E-02	3.515E-03	1.935E-02
.318	1.000	7.682E-03	1.636E-02	5.912E-04	5.541E-02	3.280E-03	1.758E-02
.298	1.050	1.099E-02	3.146E-02	2.413E-04	1.346E-02	1.553E-03	7.148E-03
.275	1.100	6.719E-02	1.872E-02	1.277E-03	1.851E-03	4.487E-04	4.813E-03
.243	1.150	9.507E-02	9.938E-04	1.114E-03	7.828E-03	6.128E-04	1.321E-02
.219	1.200	3.188E-02	3.221E-02	2.089E-04	9.275E-03	8.877E-04	2.037E-02
.189	1.250	3.736E-02	9.377E-02	8.599E-05	2.702E-03	5.341E-04	8.062E-03
.148	1.300	4.618E-01	4.173E-02	4.852E-04	1.501E-03	1.298E-04	8.826E-03
.063	1.400	1.415E+00	5.014E+00	1.413E-05	1.537E-03	3.753E-04	1.190E-01
.146	1.500	8.459E-02	5.164E-02	7.483E-05	1.145E-03	9.431E-05	1.805E-03
.409	1.800	1.299E-04	1.823E-03	8.456E-05	1.804E-02	6.833E-05	2.580E-03
.728	2.000	8.461E-05	2.966E-04	1.246E-05	3.911E-02	1.037E-04	1.197E-04

PHASE (MOTION-WAVEHT)

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-111.2	89.3	.2	74.4	88.9	20.7
.207	.250	-106.4	89.2	.2	69.3	88.0	19.4
.239	.300	-103.7	88.9	.2	64.0	86.7	18.7
.266	.350	-102.4	89.1	.1	59.0	84.7	17.1
.291	.400	-101.7	88.5	-.2	54.9	82.3	17.9
.312	.450	-101.3	86.6	-.5	52.2	79.8	20.2
.330	.500	-101.3	83.2	-.9	51.2	76.9	23.1
.344	.550	-101.8	77.3	-1.3	51.8	73.4	26.4
.355	.600	-102.8	67.5	-1.8	54.2	69.0	30.0
.359	.625	-103.7	60.3	-2.0	56.1	66.5	32.0
.362	.650	-103.0	51.2	-2.0	58.9	63.7	34.2
.364	.675	-102.0	40.3	-1.7	62.4	60.4	36.5
.365	.700	-110.0	28.2	-.8	67.4	56.7	39.1
.367	.725	-114.7	16.1	1.7	74.5	52.3	42.1
.366	.750	-123.1	5.4	10.1	85.4	46.9	45.6
.364	.800	-163.4	-10.5	138.2	128.6	30.0	58.1
.357	.850	133.3	-19.6	153.3	-179.8	-13.0	171.4
.343	.900	114.8	-24.4	152.6	-155.2	-85.2	-136.5
.335	.950	106.7	154.4	149.2	-141.3	-117.5	-123.1
.318	1.000	90.9	154.1	135.6	-129.2	-137.2	-108.5
.299	1.050	-47.4	156.1	-12.6	-110.0	-160.5	-78.8
.275	1.100	-57.4	161.9	-31.1	-14.7	147.6	-1.3
.248	1.150	-55.3	-134.9	-38.8	39.9	79.7	38.2
.218	1.200	-41.6	-46.7	-51.3	55.5	48.6	54.9
.185	1.250	100.2	-41.1	148.2	83.4	25.1	80.5
.149	1.300	121.9	-36.4	131.1	-179.0	-23.5	-165.9
.063	1.400	-178.2	120.6	52.0	-116.3	-133.0	-144.0
.146	1.600	91.3	-60.8	115.1	156.3	4.0	-179.6
.469	1.800	-55.6	-71.7	-96.7	25.4	21.5	41.7
.728	2.000	-73.0	140.1	-26.8	138.5	104.5	33.4

REC = 14 HEADING = 30. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	1.465E+00	4.105E-01	9.579E-01	1.397E-03	2.453E-03	3.397E-04
.193	.250	1.647E+00	4.427E-01	9.335E-01	3.639E-03	6.337E-03	1.149E-03
.219	.300	1.893E+00	4.716E-01	8.801E-01	8.394E-03	1.313E-02	3.382E-03
.239	.350	2.165E+00	4.836E-01	8.005E-01	1.734E-02	2.296E-02	7.880E-03
.254	.400	2.434E+00	4.854E-01	6.975E-01	3.310E-02	3.555E-02	1.781E-02
.266	.450	2.651E+00	4.623E-01	5.744E-01	5.822E-02	4.927E-02	3.581E-02
.273	.500	2.755E+00	4.020E-01	4.346E-01	8.996E-02	6.650E-02	5.903E-02
.279	.550	2.681E+00	3.190E-01	2.935E-01	1.194E-01	6.573E-02	8.376E-02
.273	.600	2.379E+00	2.358E-01	1.689E-01	1.324E-01	6.254E-02	1.031E-01
.270	.625	2.140E+00	2.021E-01	1.179E-01	1.239E-01	5.771E-02	1.080E-01
.266	.650	1.848E+00	1.771E-01	7.629E-02	1.179E-01	5.108E-02	1.085E-01
.261	.675	1.518E+00	1.619E-01	4.450E-02	1.004E-01	4.315E-02	1.041E-01
.254	.700	1.164E+00	1.561E-01	2.232E-02	7.852E-02	3.456E-02	9.497E-02
.247	.725	8.169E-01	1.583E-01	8.731E-03	5.526E-02	2.603E-02	8.240E-02
.233	.750	5.077E-01	1.770E-01	2.139E-03	3.446E-02	1.834E-02	6.805E-02
.219	.800	1.391E-01	2.180E-01	1.552E-03	6.267E-03	6.718E-03	3.270E-02
.193	.850	3.085E-01	2.116E-01	5.819E-03	5.422E-03	1.451E-03	7.998E-03
.163	.900	1.111E+00	1.360E-01	6.346E-03	2.302E-02	9.787E-04	1.564E-02
.129	.950	2.273E+00	1.547E-01	3.080E-03	3.541E-02	1.997E-03	5.488E-02
.091	1.000	2.713E+00	1.152E+00	3.121E-04	2.773E-02	2.218E-03	8.394E-02
.047	1.050	6.038E+00	1.776E+01	4.155E-04	9.979E-03	1.539E-03	1.136E-01
.012	1.100	9.761E+03	4.713E+03	1.701E-03	1.650E-03	7.979E-04	1.813E+00
.053	1.150	4.259E+01	1.998E+00	1.087E-03	4.877E-03	2.977E-04	2.444E-02
.110	1.200	5.867E-01	4.537E-01	1.705E-04	7.513E-03	7.242E-04	4.774E-02
.171	1.250	4.797E-02	1.380E-01	8.845E-05	2.788E-03	4.940E-04	6.834E-03
.237	1.300	7.810E-02	8.694E-03	4.871E-04	3.374E-03	1.103E-04	4.573E-03
.383	1.400	9.932E-04	8.683E-03	3.016E-05	2.375E-02	4.555E-04	4.453E-03
.729	1.500	2.039E-04	1.082E-03	1.047E-04	1.478E-01	1.815E-04	1.060E-04
1.145	1.600	8.827E-07	1.113E-04	1.841E-04	1.522E-03	4.178E-04	5.767E-05
1.1639	2.000	2.333E-06	7.241E-06	7.416E-05	8.335E-05	3.763E-05	1.590E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	-111.1	88.9	.2	71.0	86.4	36.3
.193	.200	-106.2	88.8	.2	65.5	85.3	31.3
.218	.300	-103.5	88.3	.2	60.0	85.2	27.2
.239	.300	-101.8	87.5	.1	54.9	83.9	26.0
.254	.400	-100.9	86.2	-.2	50.6	81.8	25.3
.265	.400	-100.4	83.8	-.6	47.5	79.1	25.7
.273	.500	-100.2	79.5	-1.1	45.7	76.1	27.3
.275	.500	-100.2	72.1	-1.8	45.1	72.6	29.3
.273	.600	-100.7	59.9	-2.4	45.4	68.4	31.3
.270	.655	-101.3	51.4	-2.5	45.9	66.1	32.1
.266	.650	-102.1	41.2	-2.5	46.6	63.5	32.7
.261	.675	-103.4	29.6	-2.1	47.5	60.6	32.9
.254	.700	-105.4	17.3	-.8	48.7	57.4	32.5
.247	.725	-108.8	4.9	2.9	50.2	53.7	31.4
.238	.750	-115.1	-6.9	14.8	54.2	49.0	30.7
.218	.800	-155.0	-26.0	136.6	79.1	35.1	24.6
.193	.850	135.2	-43.5	149.5	179.8	1.1	-9.7
.163	.900	116.1	-71.7	148.4	-155.8	-73.5	-87.0
.129	.950	103.2	-140.5	143.3	-150.1	-107.7	-105.2
.091	1.000	98.8	171.9	136.9	-150.0	-121.5	-112.2
.047	1.050	2.9	144.6	-27.6	-150.0	-131.0	-131.6
.012	1.100	-38.8	126.7	-48.3	145.5	-148.3	-148.4
.053	1.150	-48.9	103.1	-50.1	54.0	109.7	102.1
.110	1.200	-42.9	-43.1	-58.4	50.5	60.2	55.4
.171	1.250	100.5	-41.0	141.4	81.3	31.2	79.2
.237	1.300	118.9	-17.4	132.1	173.3	-33.1	-173.6
.383	1.400	-154.5	135.3	157.5	-90.6	-154.2	-92.6
.728	1.600	91.5	-36.7	99.6	-43.1	-17.9	-155.2
1.146	1.800	-41.1	-88.1	138.2	-118.6	89.5	80.4
1.639	2.000	-74.5	-169.1	52.5	-165.4	-157.3	30.3

REC = 15 HEADING = 30. DEG SHIP SPEED = 25. KNOTS RAO (MOTION/WAVEHT)*2

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	1.829E+00	5.121E-01	9.540E-01	1.430E-03	2.091E-03	1.896E-04
.179	.250	2.221E+00	5.959E-01	9.292E-01	3.795E-03	5.636E-03	7.045E-04
.193	.300	2.785E+00	6.778E-01	8.705E-01	8.705E-03	1.161E-02	2.057E-03
.211	.350	3.530E+00	7.645E-01	7.901E-01	1.793E-02	2.054E-02	5.608E-03
.218	.400	4.471E+00	8.407E-01	6.832E-01	3.333E-02	3.153E-02	1.273E-02
.220	.450	5.621E+00	8.991E-01	5.543E-01	5.584E-02	4.288E-02	2.532E-02
.216	.500	6.982E+00	9.328E-01	4.132E-01	8.254E-02	5.199E-02	4.485E-02
.266	.550	8.495E+00	9.435E-01	2.742E-01	1.071E-01	5.602E-02	7.085E-02
.191	.600	1.009E+01	9.496E-01	1.549E-01	1.138E-01	5.329E-02	1.006E-01
.181	.625	1.085E+01	9.648E-01	1.071E-01	1.132E-01	4.943E-02	1.153E-01
.170	.650	1.160E+01	1.003E+00	6.827E-02	1.124E-01	4.407E-02	1.266E-01
.157	.675	1.229E+01	1.080E+00	5.882E-02	9.958E-02	3.765E-02	1.318E-01
.143	.700	1.289E+01	1.217E+00	1.883E-02	8.240E-02	3.678E-02	1.315E-01
.128	.725	1.331E+01	1.471E+00	7.108E-03	6.303E-02	2.396E-02	1.265E-01
.111	.750	1.360E+01	1.913E+00	1.893E-03	4.239E-02	1.769E-02	1.132E-01
.073	.800	1.438E+01	5.680E+00	3.519E-03	1.016E-02	8.075E-03	8.957E-02
.023	.850	3.363E+02	2.277E+02	1.042E-02	7.291E-04	4.025E-03	3.159E-01
.021	.900	3.463E+03	1.494E+03	1.609E-02	1.299E-02	1.518E-03	1.102E+00
.075	.950	1.965E+01	2.698E+00	2.990E-03	3.371E-02	1.262E-03	6.196E-02
.137	1.000	4.451E-01	3.111E-01	2.769E-04	3.113E-02	2.095E-03	3.433E-02
.203	1.050	3.055E-02	1.153E-01	2.346E-04	1.046E-02	1.158E-03	6.442E-03
.225	1.100	6.630E-02	1.638E-02	1.124E-03	2.689E-03	3.623E-04	3.617E-03
.353	1.150	2.367E-02	3.234E-03	1.321E-03	3.366E-02	7.062E-04	9.468E-03
.437	1.200	1.340E-03	6.008E-03	5.043E-04	7.242E-02	1.213E-03	6.114E-03
.526	1.250	1.285E-03	2.444E-03	7.141E-05	1.153E-01	7.375E-04	2.675E-03
.621	1.300	2.142E-03	6.548E-04	5.031E-04	9.130E-01	2.341E-04	3.424E-03
.828	1.400	3.689E-05	8.907E-04	9.856E-04	4.396E-02	1.058E-03	1.654E-04
1.310	1.500	1.733E-05	5.833E-05	1.321E-03	1.334E-03	1.666E-04	6.249E-05
1.882	1.600	1.171E-06	2.119E-05	1.132E-05	1.823E-05	8.174E-06	3.983E-06
2.548	2.000	5.685E-08	2.711E-06	5.815E-06	5.444E-07	4.022E-06	1.572E-06

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	-111.0	88.5	.2	58.0	82.7	68.6
.179	.250	-106.0	88.3	.1	52.1	83.0	51.5
.198	.300	-103.1	87.9	.1	56.3	83.2	45.5
.211	.350	-101.4	86.9	-.1	51.0	81.9	40.1
.218	.400	-100.2	85.2	-.5	46.7	80.1	38.1
.220	.450	-99.4	82.6	-.9	43.3	77.9	37.7
.216	.500	-98.8	78.5	-1.5	40.7	75.2	38.2
.206	.550	-98.4	72.3	-2.1	38.9	72.1	39.3
.191	.600	-98.2	63.0	-2.6	37.7	68.6	40.6
.181	.625	-98.3	56.8	-2.6	37.1	66.6	41.3
.170	.650	-98.6	49.6	-2.2	36.7	64.7	41.8
.157	.675	-99.1	41.6	-.8	36.2	62.9	42.2
.143	.700	-100.1	32.8	2.3	35.5	61.0	42.2
.128	.725	-102.2	22.7	10.0	34.8	58.6	42.0
.111	.750	-105.7	12.1	36.2	33.5	56.8	40.4
.073	.800	-129.5	-14.8	126.8	26.7	52.3	32.3
.029	.850	153.7	-47.2	132.7	-79.3	53.5	21.9
.021	.900	121.4	-72.8	126.6	-137.0	41.2	3.0
.076	.950	109.9	-113.7	137.5	-148.2	-95.6	-68.9
1.000	1.000	98.4	168.6	135.2	-147.2	-121.9	-110.6
.203	1.050	-39.9	152.3	-27.4	-135.7	-148.1	-102.1
.275	1.100	-57.4	170.8	-31.1	-16.5	153.1	4.7
.353	1.150	-56.7	-88.1	-28.3	37.3	78.6	42.8
.437	1.200	-39.2	-41.1	-15.1	70.1	49.0	72.4
.526	1.250	102.1	-16.2	83.7	124.8	22.8	122.7
.621	1.300	115.8	-123.7	147.2	-131.1	-42.9	-150.5
.828	1.400	-133.2	124.0	-129.1	102.5	-134.9	-64.5
1.310	1.500	94.2	-9.2	-175.9	7.3	60.1	-166.4
1.882	1.600	12.2	-105.5	78.9	-110.7	123.7	94.1
2.548	2.000	176.6	161.2	-26.2	-120.9	144.0	43.5

REC = 16 HEADING = 45. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	5.596E-01	5.166E-01	9.886E-01	2.885E-03	2.320E-03	1.099E-03
.228	.250	5.139E-01	5.093E-01	9.715E-01	7.814E-03	5.725E-03	2.581E-03
.283	.300	4.857E-01	5.903E-01	9.526E-01	2.006E-02	1.208E-02	7.899E-03
.327	.350	4.557E-01	6.015E-01	9.205E-01	4.799E-02	2.218E-02	1.543E-02
.370	.400	4.182E-01	5.506E-01	8.643E-01	1.082E-01	3.642E-02	2.437E-02
.412	.450	3.710E-01	4.692E-01	7.804E-01	2.333E-01	5.439E-02	3.423E-02
.454	.500	3.144E-01	3.771E-01	6.668E-01	4.851E-01	7.335E-02	4.401E-02
.494	.550	2.508E-01	2.875E-01	5.298E-01	9.828E-01	9.209E-02	5.225E-02
.533	.600	1.851E-01	2.105E-01	3.821E-01	1.974E+00	1.043E-01	5.718E-02
.573	.625	1.533E-01	1.789E-01	3.099E-01	2.812E+00	1.059E-01	5.795E-02
.572	.650	1.232E-01	1.525E-01	2.419E-01	4.042E+00	1.065E-01	5.705E-02
.590	.675	9.579E-02	1.291E-01	1.804E-01	5.867E+00	1.031E-01	5.379E-02
.609	.700	7.152E-02	1.051E-01	1.292E-01	8.190E+00	9.769E-02	4.567E-02
.628	.725	5.098E-02	7.233E-02	8.754E-02	1.009E+01	9.037E-02	3.066E-02
.646	.750	3.429E-02	3.251E-02	5.425E-02	9.567E+00	8.048E-02	1.315E-02
.681	.800	1.255E-02	3.609E-04	1.309E-02	3.095E+00	2.981E-02	1.671E-03
.716	.850	3.410E-03	8.603E-03	9.815E-04	7.564E-01	2.981E-02	1.700E-03
.750	.900	1.675E-03	1.235E-02	5.930E-03	5.559E-01	1.109E-02	4.031E-04
.783	.950	2.163E-03	9.477E-03	1.367E-02	6.165E-01	4.066E-03	3.535E-05
.814	1.000	1.962E-03	4.434E-03	1.479E-02	5.265E-01	7.170E-03	6.227E-04
.846	1.050	8.938E-04	1.406E-03	8.962E-03	3.111E-01	1.280E-02	1.034E-03
.876	1.100	1.113E-04	1.395E-03	2.529E-03	1.145E-01	1.374E-02	8.380E-04
.905	1.150	1.984E-04	2.294E-03	6.754E-04	3.043E-02	8.309E-03	5.662E-04
.933	1.200	5.865E-04	2.013E-03	2.163E-03	3.744E-02	2.835E-03	5.839E-04
.960	1.250	5.421E-04	8.925E-04	2.803E-03	5.335E-02	2.836E-03	8.837E-04
.986	1.300	1.598E-04	5.319E-04	1.916E-03	3.779E-02	6.022E-03	7.105E-04
1.016	1.400	1.556E-04	9.794E-04	2.141E-03	1.554E-02	2.062E-03	3.481E-04
1.125	1.600	6.413E-05	4.288E-04	1.707E-03	8.703E-03	6.622E-04	2.225E-04
1.193	1.800	2.307E-05	1.275E-04	4.304E-04	4.237E-03	2.989E-04	1.639E-04
1.253	2.000	1.094E-07	1.829E-04	9.898E-05	8.593E-04	3.108E-04	6.234E-05

PHASE (MOTION-WAVEHT)

WE	193	WEAVE	90.0	ROLL	81.9	PITCH	92.8	YAW	6.6
.233	.250		90.0	1	78.0	90.7	90.7	7.7	
.283	.300		91.8	1	73.8	88.6	88.6	3.7	
.327	.350		92.3	-1	69.1	86.9	86.9	5.7	
.371	.400		92.0	-3	65.4	85.3	85.3	9.6	
.412	.450		91.2	-4	63.3	83.7	83.7	14.0	
.454	.500		89.9	-3	63.3	81.9	81.9	18.6	
.494	.550		88.0	-1	65.7	79.8	79.8	23.9	
.533	.600		85.6	3	71.5	77.2	77.2	30.5	
.572	.625		84.4	8	76.2	75.8	75.8	34.7	
.591	.675		83.7	1.1	82.9	74.1	74.1	40.0	
.603	.700		84.4	1.5	92.5	72.3	72.3	47.2	
.628	.725		88.3	2.7	107.1	70.3	70.3	57.4	
.646	.750		97.0	3.9	123.4	69.0	69.0	70.7	
.681	.800		109.5	5.7	156.2	65.4	65.4	83.1	
.716	.850		22.1	14.3	-145.3	58.8	58.8	43.4	
.750	.900		-19.6	78.5	-85.6	48.7	48.7	25.5	
.783	.950		-17.3	158.4	-28.6	28.6	28.6	30.0	
.814	1.000		-11.7	170.2	3.0	-22.9	-22.9	-134.8	
.846	1.050		38.5	173.7	22.4	-77.8	-77.8	-129.3	
.876	1.100		100.1	-153.1	39.4	-101.0	-101.0	-115.9	
.905	1.150		131.2	-72.2	62.5	-115.6	-115.6	-92.1	
.933	1.200		152.2	-16.4	114.2	-132.5	-132.5	-52.0	
.961	1.250		-175.6	9.6	-177.5	-169.5	-169.5	-4.5	
.986	1.300		-109.3	47.2	-143.3	121.2	121.2	29.4	
1.036	1.400		-34.5	142.8	-114.4	88.9	88.9	60.1	
1.125	1.600		156.9	-26.7	-9.2	44.9	44.9	162.7	
1.193	1.800		26.1	147.3	-173.6	-140.4	-140.4	-3	
1.253	2.000		-73.9	-124.9	-89.0	-23.8	-23.8	-147.3	
						93.5	93.5	96.7	

REC = 17

HEADING = 45. DEG
RAO (MOTION/HAVENT)**2SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.185	.200	6.515E-01	5.693E-01	9.838E-01	2.791E-03	2.049E-03	1.025E-03
.227	.250	6.237E-01	5.727E-01	9.640E-01	7.423E-03	5.177E-03	2.566E-03
.267	.300	6.144E-01	6.227E-01	9.362E-01	1.777E-02	1.094E-02	7.638E-03
.305	.350	6.030E-01	6.684E-01	8.991E-01	4.077E-02	2.030E-02	1.735E-02
.341	.400	5.793E-01	6.370E-01	8.388E-01	8.790E-02	3.324E-02	2.954E-02
.375	.450	5.387E-01	5.684E-01	7.520E-01	1.778E-01	4.906E-02	4.377E-02
.407	.500	4.791E-01	4.659E-01	6.395E-01	3.356E-01	6.592E-02	5.877E-02
.439	.550	4.017E-01	3.598E-01	5.077E-01	5.857E-01	8.084E-02	7.220E-02
.466	.600	3.119E-01	2.581E-01	3.684E-01	9.355E-01	9.022E-02	8.091E-02
.490	.625	2.651E-01	2.125E-01	3.007E-01	1.133E+00	9.180E-02	8.247E-02
.493	.650	2.189E-01	1.709E-01	2.371E-01	1.347E+00	9.093E-02	8.170E-02
.506	.675	1.747E-01	1.348E-01	1.792E-01	1.544E+00	8.751E-02	7.841E-02
.518	.700	1.340E-01	1.039E-01	1.283E-01	1.710E+00	8.163E-02	7.257E-02
.530	.725	9.895E-02	7.808E-02	8.683E-02	1.820E+00	7.357E-02	6.434E-02
.541	.750	6.780E-02	5.716E-02	5.380E-02	1.852E+00	6.383E-02	5.417E-02
.562	.800	2.510E-02	2.710E-02	1.351E-02	1.660E+00	4.196E-02	3.097E-02
.582	.850	7.558E-03	9.409E-03	5.847E-04	1.371E+00	2.183E-02	1.080E-02
.593	.900	4.339E-03	4.185E-03	2.444E-03	1.956E+00	8.413E-03	2.385E-03
.615	.950	6.133E-03	1.379E-02	7.421E-03	4.699E+00	3.176E-03	9.043E-03
.629	1.000	5.948E-03	2.599E-02	8.530E-03	8.990E+00	4.016E-03	2.113E-02
.641	1.050	2.926E-03	2.078E-02	5.206E-03	1.015E+01	6.319E-03	2.206E-02
.651	1.100	3.581E-04	5.876E-03	1.250E-03	6.156E+00	6.315E-03	1.214E-02
.659	1.150	5.715E-04	2.886E-03	3.098E-05	1.874E+00	3.828E-03	3.886E-03
.665	1.200	2.131E-03	8.217E-03	1.213E-03	1.024E+00	1.520E-03	1.550E-03
.670	1.250	2.231E-03	8.855E-03	2.028E-03	2.108E+00	1.321E-03	1.899E-03
.673	1.300	7.479E-04	5.202E-03	1.166E-03	2.351E+00	2.164E-03	1.883E-03
.672	1.400	8.622E-04	6.843E-03	2.549E-04	1.034E+00	8.405E-04	9.796E-04
.680	1.600	5.926E-04	5.689E-03	1.704E-04	1.575E+00	3.025E-04	2.774E-03
.697	1.800	4.001E-04	5.264E-04	1.372E-04	5.799E-01	1.099E-04	4.179E-03
.515	2.000	1.595E-05	1.087E-03	4.642E-05	6.721E-02	8.785E-05	2.428E-03

PHASE (MOTION-AVENT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.183	.200	-115.0	89.7	.1	79.9	91.1	11.7
.227	.250	-109.4	89.7	.2	75.9	89.5	11.8
.267	.300	-106.5	90.7	.1	71.7	87.7	9.1
.305	.350	-105.0	91.4	.1	66.9	85.8	9.0
.341	.400	-104.3	91.1	.3	62.7	84.1	11.5
.375	.450	-103.9	90.1	.4	59.8	82.4	14.8
.407	.500	-104.0	88.5	.5	58.5	80.3	18.4
.438	.550	-104.4	86.0	.6	58.9	77.7	22.3
.466	.600	-105.3	82.4	.7	61.0	74.6	26.5
.480	.625	-106.0	80.0	.8	62.9	72.9	28.8
.493	.650	-106.9	77.1	.8	65.3	70.9	31.3
.505	.675	-108.1	73.7	.8	68.3	68.6	34.0
.518	.700	-109.6	69.7	.8	72.2	66.1	37.0
.530	.725	-111.7	65.0	.7	77.1	63.3	40.4
.541	.750	-114.6	59.6	.3	83.4	60.1	44.4
.562	.800	-125.2	46.1	2.2	102.4	52.0	55.0
.582	.850	-152.2	23.4	29.5	137.4	39.8	75.1
.593	.900	-155.2	-36.1	156.8	-170.9	18.2	144.1
.615	.950	-122.6	-75.0	162.5	-125.0	-28.8	-135.4
.629	1.000	108.6	-73.7	162.5	-91.1	-84.0	-105.3
.641	1.050	98.8	-57.3	161.0	-60.5	-113.3	-81.1
.651	1.100	73.0	-21.9	157.3	-29.1	-133.6	-58.2
.653	1.150	-49.9	75.3	9.6	14.7	-156.3	-22.4
.665	1.200	-64.6	129.1	-17.1	96.8	163.3	37.0
.670	1.250	-67.2	154.0	-19.8	147.8	98.8	86.9
.673	1.300	-64.9	-166.8	-28.5	177.2	58.8	117.3
.672	1.400	103.4	-66.8	142.5	-92.8	-3.0	-149.3
.650	1.600	-87.2	94.9	-54.7	66.3	153.3	34.5
.597	1.800	89.4	-111.1	110.2	-149.3	-95.4	-162.1
.515	2.000	-72.9	-66.2	-123.9	45.3	2.0	49.3

REC = 13

HEADING = 45. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.178	.200	7.632E-01	6.388E-01	9.791E-01	2.743E-03	1.780E-03	7.859E-04
.215	.250	7.644E-01	6.155E-01	9.565E-01	7.201E-03	4.623E-03	2.246E-03
.250	.300	7.888E-01	5.652E-01	9.197E-01	1.651E-02	9.681E-03	5.531E-03
.282	.350	8.149E-01	7.434E-01	8.777E-01	3.617E-02	1.827E-02	1.675E-02
.311	.400	8.265E-01	7.424E-01	8.130E-01	7.485E-02	2.999E-02	3.241E-02
.337	.450	8.137E-01	6.846E-01	7.233E-01	1.440E-01	4.402E-02	5.233E-02
.361	.500	7.683E-01	5.876E-01	6.104E-01	2.541E-01	5.857E-02	7.538E-02
.382	.550	6.875E-01	4.683E-01	4.835E-01	4.050E-01	7.091E-02	9.861E-02
.400	.600	5.717E-01	3.438E-01	3.479E-01	5.739E-01	7.798E-02	1.172E-01
.421	.625	5.037E-01	2.850E-01	2.837E-01	6.496E-01	7.873E-02	1.228E-01
.445	.650	4.315E-01	2.211E-01	2.236E-01	7.080E-01	7.734E-02	1.251E-01
.421	.675	3.580E-01	1.837E-01	1.693E-01	7.399E-01	7.380E-02	1.233E-01
.427	.700	2.857E-01	1.479E-01	1.243E-01	7.380E-01	6.823E-02	1.173E-01
.432	.725	2.176E-01	1.123E-01	8.241E-02	6.982E-01	6.092E-02	1.071E-01
.437	.750	1.568E-01	8.378E-02	5.132E-02	6.221E-01	5.233E-02	9.311E-02
.444	.800	5.525E-02	6.177E-02	1.312E-02	3.999E-01	3.364E-02	5.808E-02
.443	.850	1.954E-02	5.019E-02	5.155E-03	2.009E-01	1.700E-02	2.406E-02
.449	.900	1.172E-02	3.048E-02	2.050E-03	1.636E-01	6.258E-03	4.116E-03
.443	.950	2.043E-02	2.061E-02	6.424E-03	3.022E-01	2.218E-03	3.927E-03
.435	1.000	2.394E-02	5.469E-03	7.191E-03	4.657E-01	2.664E-03	1.653E-02
.426	1.050	1.457E-02	5.852E-04	4.192E-03	4.732E-01	3.979E-03	2.666E-02
.414	1.100	2.494E-03	1.137E-02	9.563E-04	2.936E-01	3.744E-03	2.325E-02
.414	1.150	2.269E-03	2.327E-02	1.398E-04	9.623E-02	2.124E-03	1.132E-02
.393	1.200	1.363E-02	1.862E-02	1.085E-03	2.601E-02	7.935E-04	8.103E-03
.380	1.250	1.974E-02	3.867E-03	1.543E-03	5.930E-02	6.595E-04	1.748E-02
.359	1.300	1.013E-02	7.056E-03	7.366E-04	7.750E-02	9.981E-04	2.595E-02
.309	1.400	1.298E-02	3.371E-02	2.384E-04	1.389E-02	3.138E-04	7.911E-03
.175	1.600	6.309E-02	1.040E-01	1.326E-04	3.409E-03	9.485E-05	2.146E-03
.012	1.800	1.562E-03	3.008E-03	1.622E-04	4.451E-03	1.244E-04	2.034E+00
.228	2.000	1.085E-03	3.301E-02	3.093E-05	5.247E-03	1.362E-05	1.129E-02

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.178	.200	-114.9	89.4	.2	77.3	88.8	19.3
.215	.250	-109.3	89.4	.2	73.1	87.9	18.0
.250	.300	-105.2	89.3	.2	68.5	86.9	17.2
.282	.350	-104.7	90.2	.0	64.0	84.7	13.7
.311	.400	-103.8	89.9	-.3	59.7	82.9	14.7
.337	.450	-103.4	88.7	-.6	56.4	80.9	17.0
.361	.500	-103.4	86.7	-.9	54.5	78.6	19.8
.382	.550	-103.7	83.5	-1.4	54.0	75.7	22.8
.410	.600	-104.5	78.7	-2.1	54.9	72.3	26.1
.438	.625	-105.1	75.4	-2.4	55.9	70.3	27.8
.415	.650	-105.8	71.3	-2.9	57.3	68.1	29.6
.421	.675	-106.9	66.2	-3.3	59.1	65.6	31.6
.427	.700	-108.2	59.9	-3.8	61.5	62.9	33.6
.432	.725	-110.1	52.1	-4.3	64.5	59.9	35.9
.437	.750	-112.8	42.8	-4.8	68.5	56.4	38.4
.444	.800	-122.5	21.2	-4.9	81.4	47.8	44.5
.448	.850	-148.4	.4	8.6	108.6	35.3	54.4
.449	.900	155.9	-15.2	156.3	157.2	13.2	83.7
.443	.950	122.2	-26.2	157.2	-155.4	-34.4	-170.8
.443	1.000	109.2	-37.3	153.5	-147.8	-90.7	-141.3
.435	1.050	101.1	179.8	147.2	-135.1	-120.8	-127.1
.426	1.100	83.9	154.2	132.5	-122.1	-141.8	-111.3
.414	1.150	-48.3	152.7	21.7	-99.7	-165.2	-82.5
.398	1.200	-63.9	157.0	-23.8	-32.3	153.5	-22.1
.380	1.250	-65.4	-177.0	-35.6	27.7	89.1	24.6
.359	1.300	-61.3	-64.3	-46.2	51.6	50.0	49.9
.303	1.400	102.4	-35.0	141.3	124.8	-5.7	134.9
.175	1.600	-86.8	122.4	-59.0	-24.8	178.9	-16.5
.012	1.800	104.9	-104.4	98.2	-153.7	6.2	-27.3
.228	2.000	-81.8	-50.8	-129.1	10.4	6.8	37.0

REC = 13 HEADING = 45. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)*2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	9.002E-01	7.355E-01	9.750E-01	2.747E-03	1.515E-03	4.947E-04
.204	.250	9.477E-01	7.759E-01	9.893E-01	7.170E-03	4.055E-03	1.538E-03
.233	.300	1.033E+00	8.120E-01	9.102E-01	1.639E-02	8.667E-03	4.294E-03
.253	.350	1.130E+00	8.608E-01	8.550E-01	3.366E-02	1.599E-02	1.214E-02
.281	.400	1.223E+00	8.984E-01	7.871E-01	6.735E-02	2.648E-02	2.929E-02
.300	.450	1.292E+00	8.682E-01	6.942E-01	1.247E-01	3.683E-02	5.394E-02
.314	.500	1.320E+00	7.818E-01	5.802E-01	2.042E-01	5.131E-02	8.594E-02
.325	.550	1.286E+00	6.542E-01	4.526E-01	3.148E-01	6.147E-02	1.229E-01
.333	.600	1.177E+00	5.066E-01	3.227E-01	4.12E-01	6.671E-02	1.592E-01
.335	.625	1.093E+00	4.336E-01	2.512E-01	4.554E-01	6.687E-02	1.743E-01
.336	.650	9.894E-01	3.661E-01	2.041E-01	4.788E-01	6.511E-02	1.855E-01
.337	.675	8.703E-01	3.074E-01	1.528E-01	4.800E-01	6.157E-02	1.917E-01
.338	.700	7.392E-01	2.604E-01	1.087E-01	4.536E-01	5.639E-02	1.914E-01
.335	.725	6.018E-01	2.268E-01	7.239E-02	4.166E-01	4.982E-02	1.839E-01
.332	.750	4.650E-01	2.071E-01	4.116E-02	3.549E-01	4.233E-02	1.691E-01
.325	.800	2.237E-01	2.013E-01	1.146E-02	2.022E-01	2.654E-02	1.201E-01
.314	.850	7.241E-02	2.103E-01	2.539E-04	7.388E-02	1.302E-02	5.947E-02
.293	.900	4.299E-02	1.689E-01	2.111E-03	2.682E-02	4.557E-03	1.280E-02
.287	.950	1.136E-01	1.176E-01	5.148E-03	5.694E-02	1.363E-03	1.021E-03
.257	1.000	2.055E-01	3.782E-02	5.126E-03	1.034E-01	1.427E-03	2.078E-02
.231	1.050	2.144E-01	2.362E-02	2.598E-03	1.193E-01	2.123E-03	5.294E-02
.202	1.100	9.820E-02	1.791E-01	4.542E-04	8.682E-02	2.002E-03	6.873E-02
.163	1.150	1.618E-02	5.516E-01	2.583E-04	3.263E-02	1.134E-03	4.208E-02
.131	1.200	6.189E-01	8.639E-01	1.381E-03	1.779E-03	3.660E-04	2.965E-03
.090	1.250	4.681E+00	1.008E+00	1.287E-03	6.280E-03	1.668E-04	3.242E-02
.045	1.300	4.573E+01	4.233E+00	5.731E-04	1.658E-02	3.544E-04	1.214E-01
.053	1.350	5.013E+00	2.351E-01	3.206E-04	6.129E-04	3.632E-04	1.137E-01
.301	1.400	9.430E-03	1.705E-02	1.137E-04	1.621E-02	7.828E-05	5.525E-03
.605	1.450	3.783E-04	5.156E-04	1.148E-04	7.575E-01	8.358E-05	4.218E-03
.971	2.000	1.493E-07	4.548E-04	6.458E-05	9.272E-03	2.662E-04	1.721E-04

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	-114.8	89.0	.2	74.4	85.3	32.1
.204	.250	-109.1	89.0	.2	69.7	85.7	28.6
.233	.300	-105.9	88.8	.1	64.8	85.0	24.9
.259	.350	-104.2	88.7	-.0	60.1	83.6	21.6
.281	.400	-103.3	88.4	-.3	55.6	81.5	20.2
.302	.450	-102.8	87.0	-.8	52.1	79.3	21.2
.314	.500	-102.6	84.4	-1.3	49.7	76.8	23.1
.325	.550	-102.8	80.4	-2.1	48.6	73.7	25.4
.333	.600	-103.2	74.1	-3.1	48.5	70.1	27.9
.335	.625	-103.7	69.7	-3.7	48.8	69.1	29.2
.336	.650	-104.2	64.1	-4.4	49.5	65.8	30.6
.337	.675	-105.0	57.3	-5.1	50.4	63.3	32.0
.335	.700	-105.1	48.9	-5.8	51.7	60.6	33.5
.335	.725	-107.6	39.1	-6.6	53.5	57.6	35.0
.332	.750	-109.7	28.3	-7.4	55.8	54.3	36.5
.325	.800	-117.6	7.1	-8.0	63.5	46.2	39.4
.314	.850	-140.4	-8.9	10.6	81.8	34.8	41.9
.293	.900	-159.9	-22.6	153.3	136.3	15.2	41.3
.280	.950	-121.5	-35.4	152.9	-171.9	-23.1	-96.8
.257	1.000	-109.6	-62.0	149.0	-155.6	-87.0	-118.7
.231	1.050	-103.8	-156.6	141.7	-149.6	-115.6	-121.9
.202	1.100	-95.8	-161.3	122.7	-146.5	-134.4	-122.2
.168	1.150	-14.5	147.7	-7.6	-145.9	-151.2	-122.8
.131	1.200	-56.5	134.0	-34.7	-150.0	-178.0	-149.2
.090	1.250	-57.7	104.3	-46.9	52.0	122.3	85.2
.045	1.300	-14.8	42.3	-64.4	45.6	86.2	94.5
.055	1.400	-14.8	-63.5	135.4	47.1	39.3	18.0
.031	1.600	-89.2	147.0	-60.2	-30.3	161.5	-20.0
.055	1.800	-89.5	-148.2	117.5	-143.3	-96.8	-155.7
.071	2.000	-22.3	-84.5	13.7	-114.3	34.2	84.2

REC = 20

HEADING = 45. DEG
SHIP SPEED = 25. KNOTS
RAO (MOTION/AVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	1.069E+00	8.697E-01	9.722E-01	2.795E-03	1.279E-03	2.819E-04
.192	.250	1.190E+00	9.627E-01	9.447E-01	7.313E-03	3.544E-03	9.387E-04
.216	.300	1.380E+00	1.056E+00	9.033E-01	1.657E-02	7.707E-03	2.925E-03
.236	.350	1.617E+00	1.133E+00	8.419E-01	3.391E-02	1.409E-02	7.304E-03
.252	.400	1.890E+00	1.195E+00	7.607E-01	6.407E-02	2.250E-02	1.715E-02
.262	.450	2.184E+00	1.238E+00	6.644E-01	1.137E-01	3.306E-02	3.885E-02
.268	.500	2.472E+00	1.211E+00	5.494E-01	1.831E-01	4.343E-02	7.049E-02
.269	.550	2.715E+00	1.121E+00	4.208E-01	2.630E-01	5.143E-02	1.107E-01
.265	.600	2.922E+00	9.831E-01	2.934E-01	3.318E-01	5.490E-02	1.544E-01
.262	.625	2.891E+00	9.054E-01	2.339E-01	3.530E-01	5.446E-02	1.745E-01
.263	.650	2.862E+00	8.270E-01	1.794E-01	3.608E-01	5.248E-02	1.915E-01
.252	.675	2.770E+00	7.513E-01	1.313E-01	3.531E-01	4.904E-02	2.035E-01
.245	.700	2.627E+00	6.845E-01	9.111E-02	3.328E-01	4.455E-02	2.141E-01
.237	.725	2.423E+00	6.416E-01	5.935E-02	3.042E-01	3.941E-02	2.273E-01
.228	.750	2.153E+00	6.284E-01	3.507E-02	2.628E-01	3.393E-02	2.330E-01
.206	.800	1.458E+00	7.223E-01	7.160E-03	1.568E-01	2.114E-02	2.153E-01
.179	.850	6.855E-01	1.061E+00	1.935E-04	5.796E-02	1.068E-02	1.665E-01
.149	.900	3.594E-01	1.821E+00	3.181E-03	4.558E-03	3.916E-03	1.037E-01
.113	.950	2.748E+00	4.345E+00	6.641E-03	1.011E-02	9.391E-04	9.558E-02
.072	1.000	2.745E+01	2.264E+01	6.375E-03	5.094E-02	2.807E-04	2.163E-01
.027	1.050	1.222E+03	1.105E+03	3.953E-03	7.938E-02	2.168E-04	1.502E+00
.023	1.100	1.040E+03	7.101E+02	9.056E-04	7.577E-02	3.915E-04	8.482E-01
.077	1.150	4.187E-01	6.673E+00	3.291E-04	3.600E-02	9.637E-04	8.326E-02
.136	1.200	5.323E-01	7.405E-01	1.091E-03	1.752E-03	3.201E-04	1.618E-03
.200	1.250	2.202E-01	9.833E-03	1.176E-03	9.728E-03	2.603E-04	1.493E-02
.269	1.300	3.445E-02	3.123E-02	5.648E-04	4.102E-02	6.220E-04	2.603E-02
.419	1.400	4.649E-03	1.223E-02	1.649E-04	5.476E-02	3.255E-04	5.761E-03
.776	1.600	3.023E-04	1.817E-03	1.185E-04	1.569E-01	2.732E-04	2.715E-04
1.206	1.800	2.256E-05	9.663E-05	2.426E-04	4.389E-03	2.130E-04	1.567E-04
1.713	2.000	3.629E-07	5.136E-05	6.704E-06	3.573E-05	4.988E-05	1.260E-05

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.167	.200	-114.7	88.6	.1	71.6	79.9	56.0
.192	.250	-108.9	88.6	.1	56.6	82.0	46.3
.216	.300	-105.7	88.3	.0	61.4	82.0	37.8
.236	.350	-103.8	87.7	-.1	56.4	81.5	34.2
.252	.400	-102.6	86.8	-.4	51.9	80.1	31.7
.262	.450	-102.0	85.3	-1.0	46.1	77.8	30.0
.268	.500	-101.6	82.5	-1.7	45.3	75.1	30.5
.269	.550	-101.4	78.3	-2.6	43.3	72.1	31.7
.266	.600	-101.4	71.8	-3.7	42.1	68.7	33.2
.262	.650	-101.5	67.6	-4.3	41.6	65.8	33.8
.258	.700	-101.7	62.5	-5.0	41.2	64.8	34.3
.252	.750	-102.0	56.5	-5.6	40.7	62.8	34.4
.245	.800	-102.5	49.2	-6.3	40.3	60.4	34.5
.237	.850	-103.3	39.7	-6.9	40.3	57.7	34.5
.228	.900	-104.5	26.7	-7.3	40.4	54.9	34.5
.206	.950	-109.2	4.8	-5.0	40.9	48.7	33.1
.179	.980	-124.0	-18.8	67.3	42.6	40.9	28.2
.143	.990	-176.7	-41.4	143.9	51.2	30.1	13.6
.113	.990	124.6	-64.5	144.3	-150.2	7.4	-15.0
.072	1.000	112.3	-84.7	137.6	-148.9	-42.0	-33.5
.027	1.050	106.9	-94.4	113.9	-146.9	-13.1	-20.8
.027	1.100	97.8	-121.3	73.2	-152.6	-63.9	-43.3
.077	1.150	30.8	148.0	-18.9	-155.8	-130.1	-125.0
.136	1.200	-56.9	133.7	-36.4	-157.3	-172.7	-148.4
.200	1.250	-62.5	138.6	-40.6	32.1	102.6	43.3
.268	1.300	-60.1	-48.9	-43.7	44.2	57.3	52.3
.419	1.400	102.4	-21.2	140.7	133.9	-6.9	141.8
.776	1.600	-96.1	152.7	-78.3	148.6	162.8	8.6
1.206	1.800	-94.1	39.3	111.9	28.6	-32.1	-142.4
1.713	2.000	64.8	-75.7	33.4	-70.9	108.7	114.9

REC = 21

HEADING = 60. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	3.209E-01	7.591E-01	9.943E-01	4.322E-03	1.122E-03	8.230E-04
.242	.250	2.777E-01	7.516E-01	9.853E-01	1.152E-02	2.814E-03	1.976E-03
.288	.300	2.565E-01	8.982E-01	9.831E-01	2.896E-02	6.119E-03	6.328E-03
.334	.350	2.398E-01	9.269E-01	9.752E-01	6.651E-02	1.158E-02	1.204E-02
.379	.400	2.282E-01	8.735E-01	9.535E-01	1.456E-01	1.969E-02	1.885E-02
.423	.450	2.049E-01	7.828E-01	9.124E-01	3.132E-01	3.070E-02	2.685E-02
.467	.500	1.841E-01	6.776E-01	8.471E-01	6.769E-01	4.442E-02	3.610E-02
.511	.550	1.071E-01	5.759E-01	7.558E-01	1.506E+00	6.000E-02	4.609E-02
.553	.600	1.351E-01	4.907E-01	6.407E-01	3.561E+00	7.577E-02	5.596E-02
.574	.625	1.212E-01	4.582E-01	5.765E-01	5.649E+00	8.300E-02	5.993E-02
.595	.650	1.085E-01	4.308E-01	5.095E-01	9.077E+00	8.935E-02	6.135E-02
.615	.675	9.518E-02	4.012E-01	4.528E-01	1.382E+01	9.657E-02	5.587E-02
.635	.700	8.216E-02	3.382E-01	3.985E-01	1.792E+01	1.634E-01	3.982E-02
.656	.725	6.965E-02	2.381E-01	3.442E-01	1.768E+01	1.090E-01	2.076E-02
.676	.750	5.799E-02	1.448E-01	2.911E-01	1.347E+01	1.130E-01	1.118E-02
.716	.800	3.288E-02	4.91E-02	1.923E-01	5.700E+00	1.151E-01	1.180E-02
.753	.850	2.135E-02	1.722E-02	1.098E-01	2.194E+00	1.079E-01	1.309E-02
.794	.900	1.055E-02	6.89E-03	5.023E-02	2.668E-01	9.156E-02	1.032E-02
.832	.950	4.362E-03	6.360E-03	1.550E-02	2.337E-01	6.821E-02	5.929E-03
.869	1.000	1.694E-03	8.971E-03	2.812E-03	1.133E-01	4.270E-02	2.231E-03
.905	1.050	1.057E-03	1.037E-02	4.165E-03	1.594E-01	2.129E-02	4.200E-04
.941	1.100	1.150E-03	8.893E-03	9.351E-03	2.265E-01	9.252E-03	4.060E-04
.977	1.150	1.115E-03	5.117E-03	1.151E-02	2.282E-01	8.177E-03	1.165E-03
1.011	1.200	7.444E-04	1.773E-03	8.149E-03	1.713E-01	1.463E-02	1.668E-03
1.045	1.250	3.288E-04	5.383E-04	3.691E-03	9.252E-02	2.004E-02	1.458E-03
1.078	1.300	5.853E-05	1.116E-03	3.449E-03	3.079E-02	1.810E-02	8.395E-04
1.143	1.400	1.760E-04	1.864E-03	6.317E-03	9.188E-03	4.380E-03	4.818E-04
1.264	1.600	2.300E-06	7.227E-04	1.966E-03	2.476E-03	2.978E-03	1.843E-04
1.375	1.800	5.244E-06	2.186E-04	7.534E-05	1.744E-03	1.617E-03	1.259E-04
1.476	2.000	2.222E-06	1.218E-04	1.729E-04	5.929E-04	2.112E-04	5.906E-05

PHASE (MOTION-HAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
195	200	-122.3	89.9	.1	84.6	94.7	6.3
196	200	-115.3	90.0	.1	82.1	92.0	7.3
197	200	-111.6	91.8	-.2	79.5	89.6	-.4
198	300	-109.5	92.2	-.4	75.9	88.1	1.5
199	350	-108.3	92.0	-.4	72.6	86.9	5.7
200	400	-107.8	91.4	-.4	70.5	85.7	10.4
201	450	-107.7	90.6	-.2	70.1	84.5	15.4
202	500	-107.9	89.6	.1	72.2	83.1	21.1
203	550	-108.6	88.7	.4	78.9	81.4	28.8
204	600	-109.0	87.8	.6	85.1	80.5	34.3
205	650	-109.6	87.0	.8	94.6	79.5	41.6
206	700	-110.2	86.9	1.1	109.5	78.4	51.6
207	750	-111.0	86.6	1.5	129.6	77.3	62.1
208	800	-111.1	86.3	2.0	151.9	76.1	65.6
209	850	-111.1	84.8	4.3	171.4	74.8	53.6
210	900	-120.6	84.8	7.3	192.5	71.8	28.4
211	950	-128.1	50.7	12.7	214.5	68.4	26.4
212	1000	-141.6	9.5	24.9	238.6	64.3	30.1
213	1050	-160.0	-13.1	68.2	261.2	58.9	36.5
214	1100	-183.7	-22.3	144.2	281.7	50.9	48.0
215	1150	-212.2	-24.5	169.1	301.1	36.8	92.3
216	1200	-241.8	-43.3	174.7	321.8	7.3	169.7
217	1250	-271.1	49.9	-154.4	343.3	-40.1	-156.4
218	1300	-300.3	105.5	-116.3	365.9	-69.0	-139.9
219	1350	-329.8	136.8	-55.5	389.2	-81.8	-124.8
220	1400	-359.0	161.2	-4.5	413.5	-90.7	-103.2
221	1450	-388.0	184.0	-147.6	438.2	-129.8	-12.4
222	1500	-417.0	204.0	128.9	463.1	103.2	103.5
223	1550	-446.0	224.1	-66.4	488.1	-53.5	-103.4
224	1600	-475.1	-82.1	-66.4	513.1	122.6	79.7

REC = 22

HEADING = 60. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	3.563E-01	8.119E-01	9.900E-01	4.211E-03	9.442E-04	7.738E-04
.234	.250	3.471E-01	8.152E-01	9.789E-01	1.113E-02	2.472E-03	1.933E-03
.276	.300	3.010E-01	9.338E-01	9.702E-01	2.635E-02	5.510E-03	6.417E-03
.318	.350	2.900E-01	9.971E-01	9.582E-01	5.861E-02	1.066E-02	1.351E-02
.358	.400	2.782E-01	9.693E-01	9.324E-01	1.240E-01	1.820E-02	2.201E-02
.397	.450	2.633E-01	8.911E-01	8.880E-01	2.536E-01	2.826E-02	3.225E-02
.434	.500	2.440E-01	7.881E-01	8.220E-01	5.059E-01	4.055E-02	4.421E-02
.471	.550	2.198E-01	6.754E-01	7.335E-01	9.895E-01	5.420E-02	5.738E-02
.505	.600	1.909E-01	5.645E-01	6.294E-01	1.907E+00	6.776E-02	7.070E-02
.522	.625	1.749E-01	5.125E-01	5.659E-01	2.636E+00	7.392E-02	7.688E-02
.539	.650	1.583E-01	4.675E-01	5.042E-01	3.634E+00	7.932E-02	8.232E-02
.555	.675	1.412E-01	4.281E-01	4.415E-01	4.992E+00	8.371E-02	8.653E-02
.571	.700	1.238E-01	3.796E-01	3.794E-01	6.810E+00	8.685E-02	8.876E-02
.587	.725	1.068E-01	3.445E-01	3.191E-01	9.155E+00	8.853E-02	8.789E-02
.602	.750	9.419E-02	3.012E-01	2.635E-01	1.185E+01	8.898E-02	8.210E-02
.632	.800	5.999E-02	1.883E-01	1.729E-01	1.482E+01	8.759E-02	5.145E-02
.660	.850	3.532E-02	6.506E-02	9.928E-02	1.072E+01	7.529E-02	2.026E-02
.687	.900	1.790E-02	9.891E-03	4.560E-02	4.683E+00	6.502E-02	9.526E-03
.713	.950	7.595E-03	5.338E-03	1.515E-02	1.432E+00	4.720E-02	6.242E-03
.737	1.000	3.087E-03	1.424E-02	1.846E-03	5.267E-01	2.934E-02	3.139E-03
.761	1.050	2.168E-03	1.968E-02	7.595E-04	5.510E-01	1.512E-02	7.026E-04
.782	1.100	2.523E-03	1.821E-02	4.896E-03	8.161E-01	7.037E-03	1.279E-05
.803	1.150	2.557E-03	1.139E-02	8.456E-03	9.135E-01	5.247E-03	7.720E-04
.822	1.200	1.815E-03	4.513E-03	8.599E-03	7.719E-01	7.439E-03	1.767E-03
.840	1.250	7.684E-04	1.371E-02	5.739E-03	4.738E-01	9.995E-03	2.006E-03
.856	1.300	1.291E-04	2.132E-03	2.247E-03	1.924E-01	1.010E-02	1.447E-03
.885	1.400	5.391E-04	4.059E-03	2.398E-04	5.855E-02	4.136E-03	8.716E-04
.928	1.600	1.047E-05	2.206E-03	4.492E-04	4.222E-02	3.528E-03	5.694E-04
.949	1.800	2.539E-05	8.966E-04	3.155E-04	3.572E-02	1.659E-03	5.843E-04
.950	2.000	1.938E-05	6.696E-04	8.878E-05	2.420E-02	6.901E-04	4.130E-04

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	-122.2	89.7	.1	83.3	92.1	11.1
.234	.250	-115.2	89.8	.1	90.7	90.1	11.2
.275	.300	-111.4	91.2	.0	78.4	87.9	4.7
.318	.350	-108.3	91.7	.2	75.0	86.3	4.6
.353	.400	-108.1	91.5	.3	71.4	85.2	7.5
.397	.450	-107.5	90.8	.4	68.6	84.1	11.1
.434	.500	-107.4	89.9	.4	67.1	82.8	15.0
.471	.550	-107.5	88.6	.4	67.4	81.2	19.1
.505	.600	-108.2	86.9	.4	68.8	79.2	23.7
.522	.625	-108.6	85.0	.5	72.1	78.0	26.4
.539	.650	-109.2	85.1	.5	75.2	76.8	29.4
.555	.675	-109.8	84.3	.6	79.5	75.4	32.9
.571	.700	-110.6	83.9	.7	85.2	73.8	37.0
.587	.725	-111.6	84.1	.9	92.6	72.1	42.1
.602	.750	-112.7	85.7	-1.0	102.5	70.3	46.1
.618	.800	-115.8	93.2	-1.0	129.9	66.2	61.0
.632	.850	-120.4	99.7	.8	161.7	61.3	63.1
.647	.900	-128.1	83.4	.0	-159.0	55.3	48.2
.713	.950	-142.4	6.1	2.4	-137.8	47.5	37.5
.770	1.000	-170.2	-20.0	14.2	-89.6	36.7	35.3
.751	1.050	150.2	-25.1	147.4	-38.2	19.9	37.7
.782	1.100	122.1	-24.6	165.9	-10.7	-9.9	-152.7
.803	1.150	100.5	-19.5	169.9	5.2	-54.9	-137.0
.822	1.200	95.7	-5.2	172.6	17.3	-91.2	-129.3
.843	1.250	83.4	47.1	175.8	29.8	-113.8	-118.6
.855	1.300	48.9	99.5	-178.6	48.0	-131.6	-100.6
.885	1.400	-70.9	136.9	-28.1	160.0	-178.5	-21.0
.929	1.500	115.6	-64.0	34.6	-86.0	35.9	95.5
.943	1.550	92.0	96.1	-169.6	65.5	-134.2	-109.9
.950	2.000	-99.7	-98.3	-18.4	-127.2	39.7	69.3

REC = 23

HEADING = 60. DEG
RAO (MOYON/HAVENT)*2
SHIP SPEED = 15. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	3.958E-01	8.776E-01	9.860E-01	4.130E-03	7.774E-04	6.190E-04
.225	.200	3.637E-01	8.940E-01	9.728E-01	1.082E-02	2.143E-03	1.659E-03
.265	.300	3.555E-01	9.753E-01	9.573E-01	2.466E-02	4.855E-03	5.452E-03
.302	.300	3.542E-01	1.075E+00	9.419E-01	5.303E-02	9.672E-03	1.377E-02
.337	.400	3.513E-01	1.078E+00	9.121E-01	1.099E-01	1.663E-02	2.417E-02
.370	.400	3.443E-01	1.021E+00	8.646E-01	2.143E-01	2.592E-02	3.713E-02
.402	.500	3.303E-01	9.258E-01	7.971E-01	4.000E-01	3.703E-02	5.287E-02
.431	.500	3.093E-01	8.084E-01	7.098E-01	7.273E-01	4.910E-02	7.095E-02
.454	.600	2.791E-01	6.801E-01	6.060E-01	1.244E+00	6.091E-02	9.006E-02
.471	.600	2.609E-01	6.150E-01	5.496E-01	1.593E+00	6.618E-02	9.934E-02
.484	.600	2.409E-01	5.507E-01	4.916E-01	2.009E+00	7.076E-02	1.079E-01
.496	.675	2.193E-01	4.881E-01	4.328E-01	2.492E+00	7.442E-02	1.155E-01
.504	.700	1.965E-01	4.203E-01	3.747E-01	3.334E+00	7.698E-02	1.214E-01
.513	.725	1.730E-01	3.716E-01	3.191E-01	3.620E+00	7.827E-02	1.254E-01
.523	.750	1.493E-01	3.186E-01	2.645E-01	4.233E+00	7.818E-02	1.268E-01
.543	.800	1.036E-01	2.245E-01	1.694E-01	5.309E+00	7.374E-02	1.208E-01
.563	.800	6.376E-02	1.452E-01	9.521E-02	5.845E+00	6.402E-02	1.019E-01
.581	.900	3.367E-02	8.082E-02	4.430E-02	5.301E+00	5.054E-02	7.245E-02
.595	.900	1.486E-02	3.391E-02	1.487E-02	3.995E+00	3.559E-02	3.950E-02
.606	1.000	6.442E-03	1.089E-02	2.244E-03	2.357E+00	2.185E-02	1.254E-02
.616	1.000	5.147E-03	1.370E-02	1.514E-04	2.236E+00	1.133E-02	1.094E-03
.624	1.100	6.633E-03	2.923E-02	2.563E-03	4.347E+00	5.249E-03	4.848E-03
.629	1.100	7.258E-03	3.813E-02	5.148E-03	7.366E+00	3.314E-03	1.544E-02
.633	1.200	5.581E-03	3.118E-02	5.375E-03	8.997E+00	3.869E-03	2.347E-02
.635	1.200	4.207E-04	2.334E-03	1.378E-03	7.995E+00	4.805E-03	2.371E-02
.628	1.400	1.855E-03	5.359E-03	4.113E-04	7.643E-01	1.989E-03	4.231E-03
.592	1.600	2.318E-05	1.523E-03	1.126E-04	1.005E+00	1.121E-03	8.226E-03
.525	1.800	3.612E-04	2.748E-03	1.118E-04	2.670E-01	4.370E-04	9.092E-03
.425	2.000	5.973E-04	4.803E-03	3.352E-05	6.538E-02	1.330E-04	9.591E-03

PHASE (MOTION-WAVEENT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	-122.2	89.4	.2	81.3	88.3	17.8
.225	.250	-115.1	89.5	.2	78.5	87.4	16.5
.265	.300	-111.2	90.4	.1	75.9	86.0	11.0
.302	.350	-109.0	91.1	-.1	72.6	84.3	8.4
.337	.400	-107.8	90.8	-.3	68.7	83.3	10.0
.370	.450	-107.2	90.1	-.5	65.4	82.2	12.7
.402	.500	-107.0	89.0	-.7	63.1	80.8	15.7
.431	.550	-107.2	87.5	-.1	62.0	79.0	18.8
.458	.600	-107.7	85.4	-.3	62.2	76.7	22.0
.471	.625	-108.1	84.1	-.6	62.8	75.4	23.7
.484	.650	-108.6	82.6	-.9	63.8	74.0	25.5
.495	.675	-109.2	81.0	-.2	65.2	72.4	27.3
.507	.700	-110.0	79.1	-.7	66.9	70.6	29.3
.518	.725	-110.9	77.0	-.2	69.1	68.7	31.4
.529	.750	-112.0	74.8	-.7	71.8	66.5	33.6
.548	.800	-115.0	69.6	-.1	78.6	61.7	38.5
.565	.850	-119.6	63.8	-.6	88.2	55.9	44.5
.581	.900	-127.5	56.6	-.9	101.6	48.8	51.7
.595	.950	-142.3	44.5	-12.5	121.8	39.9	60.9
.606	1.000	-171.5	9.9	-18.5	156.7	29.2	75.0
.616	1.050	148.5	-45.4	-174.6	-150.5	11.0	127.7
.624	1.100	121.8	-65.1	165.3	-110.8	-17.2	-129.9
.629	1.150	107.5	-70.0	159.4	-88.3	-59.9	-112.2
.633	1.200	98.2	-71.1	153.5	-73.6	-93.6	-102.5
.635	1.250	88.6	-71.4	145.5	-62.0	-125.6	-93.9
.635	1.300	63.7	-73.5	131.3	-49.9	-148.2	-82.9
.628	1.400	-72.7	109.5	4.9	22.3	159.8	-17.0
.592	1.600	70.8	-34.3	-91.0	113.7	8.8	85.8
.525	1.800	104.2	135.1	95.4	-112.8	-166.4	-127.7
.425	2.000	-90.7	-60.4	-109.6	39.3	.2	42.6

REC = 24

HEADING = 60. DEG
PAOSHIP SPEED = 20. KNOTS
(MOTION/HAVENT)*2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	4.433E-01	9.626E-01	9.836E-01	4.115E-03	6.291E-04	4.264E-04
.217	.250	4.193E-01	9.975E-01	9.674E-01	1.068E-02	1.833E-03	1.230E-03
.253	.300	4.232E-01	1.040E+00	9.446E-01	2.395E-02	4.151E-03	3.531E-03
.285	.350	4.370E-01	1.175E+00	9.265E-01	4.971E-02	8.628E-03	1.220E-02
.316	.400	4.505E-01	1.215E+00	8.931E-01	9.935E-02	1.512E-02	2.414E-02
.344	.450	4.596E-01	1.167E+00	8.464E-01	1.894E-01	2.362E-02	3.986E-02
.369	.500	4.606E-01	1.109E+00	7.700E-01	3.425E-01	3.365E-02	5.999E-02
.391	.550	4.504E-01	9.937E-01	6.859E-01	5.823E-01	4.446E-02	8.446E-02
.411	.600	4.263E-01	8.535E-01	5.842E-01	9.235E-01	5.483E-02	1.121E-01
.420	.625	4.085E-01	7.775E-01	5.297E-01	1.130E+00	5.938E-02	1.263E-01
.428	.650	3.870E-01	6.997E-01	4.735E-01	1.354E+00	6.329E-02	1.401E-01
.436	.675	3.617E-01	6.216E-01	4.176E-01	1.585E+00	6.631E-02	1.530E-01
.443	.700	3.331E-01	5.447E-01	3.620E-01	1.815E+00	6.834E-02	1.642E-01
.449	.725	3.017E-01	4.707E-01	3.031E-01	2.018E+00	6.922E-02	1.731E-01
.455	.750	2.680E-01	4.011E-01	2.589E-01	2.138E+00	6.885E-02	1.790E-01
.464	.800	1.975E-01	2.803E-01	1.659E-01	2.325E+00	6.437E-02	1.789E-01
.471	.850	1.295E-01	1.896E-01	9.417E-02	2.125E+00	5.528E-02	1.609E-01
.475	.900	7.266E-02	1.312E-01	4.455E-02	1.603E+00	4.304E-02	1.251E-01
.476	.950	3.352E-02	9.939E-02	1.511E-02	9.425E-01	2.973E-02	8.137E-02
.475	1.000	1.459E-02	3.278E-02	2.394E-03	4.253E-01	1.769E-02	3.835E-02
.471	1.050	1.274E-02	5.804E-02	2.939E-04	2.723E-01	8.765E-03	9.731E-03
.465	1.100	1.973E-02	4.667E-02	2.679E-03	4.833E-01	3.752E-03	3.202E-03
.456	1.150	2.557E-02	2.098E-02	4.920E-03	8.226E-01	2.125E-03	1.641E-02
.444	1.200	2.341E-02	3.609E-03	4.952E-03	9.957E-01	2.403E-03	3.632E-02
.430	1.250	1.346E-02	8.026E-03	3.165E-03	8.603E-01	2.941E-03	4.813E-02
.413	1.300	3.013E-02	3.343E-02	1.283E-03	5.169E-01	2.763E-03	4.118E-02
.371	1.400	1.083E-02	5.371E-02	6.896E-04	3.563E-02	9.692E-04	9.230E-03
.256	1.600	1.064E-03	1.362E-01	7.900E-05	3.613E-02	3.325E-04	2.874E-02
.099	1.800	3.836E-01	1.790E+00	1.062E-04	1.415E-02	3.717E-05	1.447E-01
.101	2.000	1.819E-01	1.457E+00	6.730E-05	1.158E-02	1.148E-06	1.119E-01

PHASE (MOTION-WAVEHT)

HE	179	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	-122.1	89.1	.2	78.8	82.5	27.8	
.250	-115.0	89.2	.2	75.7	83.5	24.6	
.300	-110.9	89.4	.1	72.3	83.6	20.6	
.350	-103.7	90.3	.1	59.0	81.9	13.7	
.400	-107.5	90.1	.3	64.9	80.9	13.7	
.450	-106.8	89.3	.6	61.1	79.8	15.4	
.500	-106.6	88.1	1.0	58.1	78.3	17.6	
.550	-106.7	86.3	1.5	56.1	76.4	20.0	
.600	-107.1	83.8	2.3	55.0	73.9	22.4	
.625	-107.5	82.3	2.7	54.9	72.5	23.7	
.650	-107.9	80.4	3.3	54.9	70.9	24.9	
.675	-108.5	78.3	3.9	53.1	69.1	26.2	
.700	-109.1	75.8	4.6	55.6	67.2	27.5	
.725	-109.9	72.9	5.4	56.3	65.1	28.9	
.750	-110.9	69.4	6.3	57.2	62.8	30.3	
.800	-113.6	60.5	8.6	59.7	57.6	33.2	
.850	-117.8	48.2	11.5	63.6	51.5	36.5	
.900	-125.0	32.0	15.5	69.6	44.2	40.4	
.950	-139.0	13.1	21.4	80.5	35.1	45.4	
1.000	-168.6	-5.3	34.9	103.6	23.2	53.4	
1.050	148.3	-20.9	154.9	150.3	6.1	73.1	
1.100	120.8	-33.9	164.3	170.9	-21.9	158.9	
1.150	107.2	-48.1	152.9	-153.0	-56.2	-154.2	
1.200	99.0	-86.7	142.8	-143.1	-108.4	-140.4	
1.250	91.7	174.1	130.1	-135.5	-136.3	-130.5	
1.300	76.6	154.4	107.9	-127.3	-157.8	-119.3	
1.400	-73.8	146.4	-7.9	-72.9	150.9	-52.6	
1.500	-32.1	-47.3	-138.7	45.7	9.9	48.3	
1.600	113.5	139.3	75.3	-157.2	-128.3	-142.9	
1.800	-79.7	-36.9	-114.6	12.8	53.9	37.8	

REC = 25 HEADING = 60. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/HAVENT)**2

WE	N	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.174	.200	4.967E-01	1.072E+00	9.838E-01	4.134E-03	5.171E-04	2.675E-04
.203	.250	4.860E-01	1.136E+00	9.635E-01	1.070E-02	1.563E-03	7.907E-04
.241	.300	5.086E-01	1.191E+00	9.375E-01	2.399E-02	3.593E-03	2.161E-03
.270	.350	5.458E-01	1.226E+00	9.119E-01	4.847E-02	7.536E-03	8.727E-03
.295	.400	5.874E-01	1.243E+00	8.759E-01	9.433E-02	1.352E-02	2.081E-02
.317	.450	6.276E-01	1.248E+00	8.222E-01	1.753E-01	2.128E-02	3.807E-02
.335	.500	6.614E-01	1.283E+00	7.508E-01	3.065E-01	3.039E-02	6.166E-02
.351	.550	6.829E-01	1.285E+00	6.629E-01	4.993E-01	4.006E-02	9.232E-02
.364	.600	6.859E-01	1.144E+00	5.619E-01	7.533E-01	4.918E-02	1.296E-01
.363	.625	5.786E-01	1.061E+00	5.081E-01	8.966E-01	5.312E-02	1.501E-01
.373	.650	6.647E-01	9.723E-01	4.533E-01	1.042E+00	5.641E-02	1.712E-01
.375	.675	6.435E-01	8.795E-01	3.934E-01	1.183E+00	5.890E-02	1.922E-01
.379	.700	6.149E-01	7.857E-01	3.443E-01	1.308E+00	6.044E-02	2.122E-01
.380	.725	5.788E-01	6.934E-01	2.919E-01	1.407E+00	6.092E-02	2.302E-01
.381	.750	5.357E-01	6.057E-01	2.423E-01	1.471E+00	6.028E-02	2.452E-01
.380	.800	4.311E-01	4.553E-01	1.543E-01	1.461E+00	5.563E-02	2.616E-01
.376	.850	3.113E-01	3.536E-01	8.583E-02	1.250E+00	4.697E-02	2.532E-01
.363	.900	1.932E-01	3.089E-01	3.687E-02	8.822E-01	3.577E-02	2.166E-01
.353	.950	9.657E-02	3.101E-01	1.820E-02	4.857E-01	2.398E-02	1.560E-01
.344	1.000	4.118E-02	3.257E-01	1.517E-03	1.789E-01	1.366E-02	8.536E-02
.327	1.050	3.833E-02	3.138E-01	5.507E-04	5.060E-02	6.294E-03	2.659E-02
.306	1.100	8.463E-02	2.475E-01	3.003E-03	8.917E-02	2.317E-03	5.111E-04
.282	1.150	1.576E-01	1.470E-01	4.512E-03	1.935E-01	9.953E-04	1.295E-02
.255	1.200	2.190E-01	8.343E-02	3.699E-03	2.622E-01	9.818E-04	4.371E-02
.225	1.250	2.203E-01	1.126E-01	1.935E-03	2.022E-01	1.011E-03	1.069E-01
.191	1.300	1.344E-01	4.140E-01	5.367E-04	2.022E-01	1.011E-03	1.069E-01
.114	1.400	3.241E-01	3.939E+00	9.242E-04	2.209E-02	2.489E-04	9.570E-02
.080	1.600	3.964E-01	6.543E+00	1.127E-04	2.779E-02	1.117E-04	1.243E-01
.326	1.800	2.754E-03	4.341E-02	1.570E-04	5.170E-02	1.732E-04	2.020E-02
.626	2.000	1.231E-04	6.699E-04	1.147E-04	1.032E+00	1.933E-04	4.619E-03

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
174	200	-122.1	88.8	.1	76.6	73.2	43.9
209	250	-114.9	89.9	.1	73.0	77.9	38.1
241	300	-110.7	88.8	.0	69.1	79.6	32.7
270	350	-108.4	89.3	-.2	65.3	78.8	21.8
295	400	-107.1	89.2	-.5	61.1	77.8	19.3
317	450	-106.4	88.4	-.9	57.1	76.7	19.8
336	500	-106.1	87.0	-1.4	53.8	75.2	21.2
351	550	-106.1	85.0	-2.1	51.4	73.1	23.0
364	600	-106.4	82.2	-3.2	49.7	70.5	24.9
369	625	-106.6	80.4	-3.8	48.2	68.9	25.9
373	650	-107.0	78.2	-4.5	46.8	67.2	26.9
376	675	-107.4	75.7	-5.3	45.5	65.4	28.0
378	700	-107.9	72.6	-6.3	44.5	63.4	29.0
381	725	-108.6	69.0	-7.3	43.6	61.2	30.1
381	750	-109.4	64.6	-8.5	42.8	58.8	31.2
382	800	-111.6	53.2	-11.4	40.8	53.5	33.5
378	850	-115.1	37.7	-15.0	31.7	47.4	36.0
368	900	-121.0	19.3	-19.9	25.0	40.3	38.6
358	950	-133.0	1.2	-27.2	11.0	31.8	41.3
344	1000	-151.4	-26.6	-35.9	75.2	21.0	44.0
327	1050	148.9	-39.2	-43.4	120.8	5.9	45.9
306	1100	118.6	-58.1	-48.0	-178.7	-19.0	27.0
282	1150	105.8	-96.2	-58.1	-159.1	-62.8	-119.0
255	1200	99.6	-157.1	137.1	-152.8	-106.5	-120.4
225	1250	95.8	-157.1	122.4	-150.9	-134.5	-123.9
191	1300	91.7	165.0	91.5	-150.9	-152.0	-127.1
114	1400	-67.8	121.7	-30.7	-165.8	-171.0	-153.2
083	1500	-60.6	-45.6	-157.9	26.1	59.4	41.8
326	1600	107.0	131.1	85.1	-138.3	-175.1	-130.6
626	2000	-93.0	33.1	-72.8	99.9	9.5	74.2

REC = 26

HEADING = 75. DEG
RAO (MOTION/RAVENT)**2
SHIP SPEED = 5. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.197	.200	1.471E-01	9.198E-01	9.987E-01	5.409E-03	2.687E-04	2.878E-04
.246	.250	1.073E-01	9.106E-01	9.959E-01	1.439E-02	6.944E-04	6.585E-04
.294	.300	9.061E-02	1.119E+00	1.008E+00	3.528E-02	1.616E-03	2.592E-03
.342	.350	8.053E-02	1.158E+00	1.030E+00	7.793E-02	3.189E-03	4.521E-03
.389	.400	7.327E-02	1.108E+00	1.027E+00	1.639E-01	5.607E-03	6.531E-03
.436	.450	6.733E-02	1.022E+00	1.025E+00	3.423E-01	9.054E-03	8.984E-03
.483	.500	6.198E-02	9.281E-01	1.008E+00	7.396E-01	1.367E-02	1.210E-02
.529	.550	5.685E-02	8.443E-01	9.717E-01	1.730E+00	1.950E-02	1.598E-02
.575	.600	5.173E-02	7.879E-01	9.127E-01	4.615E+00	2.645E-02	2.004E-02
.598	.625	4.915E-02	7.715E-01	8.743E-01	7.868E+00	3.026E-02	2.073E-02
.621	.650	4.654E-02	7.525E-01	8.593E-01	1.271E+01	3.551E-02	1.794E-02
.644	.675	4.391E-02	6.739E-01	8.433E-01	1.658E+01	4.141E-02	9.612E-03
.667	.700	4.127E-02	5.450E-01	8.234E-01	1.572E+01	4.796E-02	2.636E-03
.689	.725	3.862E-02	4.361E-01	8.033E-01	1.203E+01	5.518E-02	2.142E-03
.712	.750	3.598E-02	3.644E-01	7.839E-01	8.779E+00	6.307E-02	5.236E-03
.757	.800	3.075E-02	2.760E-01	7.301E-01	4.868E+00	8.086E-02	1.254E-02
.801	.850	2.566E-02	2.116E-01	6.647E-01	2.995E+00	1.011E-01	1.774E-02
.845	.900	2.086E-02	1.567E-01	5.855E-01	1.965E+00	1.230E-01	2.058E-02
.889	.950	1.643E-02	1.095E-01	4.949E-01	1.316E+00	1.448E-01	2.136E-02
.932	1.000	1.247E-02	7.041E-02	3.869E-01	8.731E-01	1.636E-01	2.037E-02
.975	1.050	8.949E-03	4.079E-02	2.736E-01	5.568E-01	1.770E-01	1.785E-02
1.018	1.100	6.001E-03	2.084E-02	1.632E-01	3.319E-01	1.709E-01	1.436E-02
1.060	1.150	3.739E-03	9.736E-03	7.627E-02	1.765E-01	1.621E-01	1.050E-02
1.102	1.200	2.144E-03	5.104E-03	2.762E-02	7.739E-02	1.284E-01	9.782E-03
1.144	1.250	1.146E-03	4.576E-03	1.440E-02	2.305E-02	8.877E-02	3.653E-03
1.185	1.300	6.123E-04	5.956E-03	1.778E-02	2.448E-03	5.470E-02	1.442E-03
1.267	1.400	3.067E-04	8.121E-03	2.333E-02	1.669E-02	1.622E-02	5.371E-05
1.426	1.600	1.530E-04	1.018E-03	3.763E-03	2.975E-02	3.872E-03	1.470E-03
1.580	1.800	1.202E-05	9.545E-04	1.674E-03	4.341E-04	1.724E-03	6.859E-05
1.729	2.000	2.671E-05	1.103E-04	3.446E-04	4.005E-03	3.920E-04	3.204E-04

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
197	200	-137.9	89.9	.1	87.6	100.2	6.4
246	250	-124.9	89.9	.1	86.6	95.4	8.1
294	300	-123.4	91.8	-2	86.5	91.4	-9.8
342	350	-119.8	92.0	-4	95.0	89.7	-7.5
389	400	-117.4	91.7	-4	83.3	88.7	-1.2
435	450	-115.0	91.3	-3	82.2	88.0	6.0
483	500	-115.2	90.8	-1	82.5	87.3	13.7
529	550	-114.9	90.4	.2	85.6	86.6	22.8
575	600	-115.0	90.8	.5	95.2	95.7	36.4
598	625	-115.2	92.2	.6	105.1	85.1	47.1
644	650	-115.5	96.0	.9	121.4	84.7	61.3
691	700	-115.9	100.8	1.2	142.6	84.3	74.6
737	750	-116.4	103.8	1.6	163.8	83.9	86.8
783	800	-116.9	103.8	2.0	179.7	83.5	17.6
829	850	-117.5	102.4	2.5	-169.8	83.0	.9
875	900	-118.0	99.0	3.9	-158.6	82.3	.6
921	950	-120.7	96.2	5.9	-153.5	81.7	3.9
967	1000	-122.8	93.5	8.6	-151.0	81.5	6.6
1013	1050	-125.3	90.4	12.4	-149.7	81.5	8.8
1059	1100	-128.4	85.7	17.5	-148.8	82.1	10.8
1105	1150	-131.9	81.5	25.7	-147.4	83.9	13.6
1151	1200	-135.1	72.9	38.6	-145.7	87.3	16.5
1197	1250	-141.7	57.3	57.8	-143.8	91.2	19.2
1243	1300	-149.7	30.0	89.4	-141.1	94.5	21.9
1289	1350	-161.8	-2.5	139.9	-135.2	95.8	24.9
1335	1400	-173.9	-24.7	-179.9	-106.7	93.9	29.5
1381	1450	130.9	-43.6	-153.1	17.8	76.5	152.4
1427	1500	63.5	-46.7	173.5	19.6	-10.0	-155.5
1473	1550	-62.8	112.2	91.1	-46.2	-77.4	-109.6
1519	1600	-131.4	112.7	18.1	-156.1	-179.2	13.8

REC = 27	HEADING = 75. DEG	SHIP SPEED = 10. KNOTS	RAO (MOION/WAVEHT)**2	SWAY	HEAVE	ROLL	PITCH	YAW
1.195	1.550E-01	9.507E-01	9.950E-01	5.315E-03	1.874E-04	2.864E-04		
1.242	1.146E-01	9.486E-01	9.909E-01	1.406E-02	5.458E-04	6.474E-04		
1.293	9.797E-02	1.139E+00	9.992E-01	3.314E-02	1.408E-03	2.865E-03		
1.333	8.836E-02	1.201E+00	1.009E+00	7.182E-02	2.934E-03	5.208E-03		
1.373	8.159E-02	1.168E+00	1.013E+00	1.479E-01	5.265E-03	7.481E-03		
1.422	7.607E-02	1.093E+00	1.009E+00	2.992E-01	8.539E-03	1.014E-02		
1.465	7.105E-02	1.004E+00	9.904E-01	6.112E-01	1.283E-02	1.347E-02		
1.509	6.612E-02	9.165E-01	9.551E-01	1.294E+00	1.814E-02	1.755E-02		
1.551	6.104E-02	8.446E-01	9.003E-01	2.906E+00	2.435E-02	2.200E-02		
1.572	5.842E-02	8.172E-01	8.654E-01	4.442E+00	2.773E-02	2.376E-02		
1.593	5.572E-02	7.929E-01	8.357E-01	6.757E+00	3.123E-02	2.422E-02		
1.613	5.295E-02	7.672E-01	7.937E-01	9.773E+00	3.576E-02	2.236E-02		
1.633	5.012E-02	7.142E-01	7.775E-01	1.247E+01	4.112E-02	1.692E-02		
1.654	4.723E-02	6.243E-01	7.545E-01	1.332E+01	4.693E-02	1.037E-02		
1.674	4.430E-02	5.226E-01	7.297E-01	1.213E+01	5.316E-02	6.730E-03		
1.713	3.837E-02	3.643E-01	6.743E-01	8.036E+00	6.677E-02	9.060E-03		
1.752	3.245E-02	2.631E-01	6.112E-01	5.134E+00	8.161E-02	1.503E-02		
1.790	2.670E-02	1.891E-01	5.438E-01	3.393E+00	9.699E-02	1.965E-02		
1.827	2.124E-02	1.302E-01	4.840E-01	2.233E+00	1.120E-01	2.202E-02		
1.864	1.638E-02	8.346E-02	3.827E-01	1.501E+00	1.252E-01	2.218E-02		
1.900	1.209E-02	4.842E-02	3.104E-01	9.699E-01	1.349E-01	2.041E-02		
1.936	8.528E-03	2.456E-02	2.217E-01	5.837E-01	1.391E-01	1.721E-02		
1.970	5.642E-03	1.101E-02	1.005E-01	3.173E-01	1.363E-01	1.307E-02		
1.004	3.479E-03	5.753E-03	9.321E-02	1.448E-01	1.248E-01	8.742E-03		
1.039	2.037E-03	5.658E-03	5.532E-02	4.806E-02	1.045E-01	4.939E-03		
1.073	1.183E-03	7.878E-03	3.647E-02	8.935E-03	7.824E-02	2.131E-03		
1.114	5.887E-04	1.098E-02	2.915E-02	2.832E-02	2.919E-02	1.173E-04		
1.152	2.983E-04	1.690E-03	6.169E-03	5.823E-02	7.616E-03	2.241E-03		
1.180	2.595E-05	1.646E-03	3.171E-03	2.043E-04	5.692E-03	2.019E-04		
1.457	4.660E-05	1.990E-04	1.448E-03	9.816E-03	8.896E-04	5.989E-04		

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
1.195	.200	-137.9	89.7	.1	86.9	94.9	10.8
.242	.250	-128.9	89.3	.2	86.0	90.9	11.6
.283	.300	-123.3	91.5	-.1	86.7	87.0	-4.4
.333	.350	-119.5	91.8	-.3	85.5	85.8	-4.1
.378	.400	-117.3	91.5	-.3	83.8	85.5	.5
.422	.450	-115.9	91.0	-.3	82.6	85.3	6.4
.465	.500	-115.1	90.5	-.2	82.5	85.0	12.8
.503	.550	-114.7	89.9	.0	84.6	84.4	20.0
.551	.600	-114.8	89.6	.2	90.8	83.5	29.1
.572	.625	-115.0	89.9	.2	96.6	82.9	35.0
.593	.650	-115.3	90.8	.2	105.1	82.3	42.5
.613	.675	-115.7	93.2	.3	117.4	81.7	51.2
.633	.700	-116.2	95.5	.5	132.7	81.2	58.2
.654	.725	-116.7	99.5	.8	148.7	80.6	58.3
.674	.750	-117.3	101.1	1.1	162.8	80.0	45.8
.713	.800	-118.8	100.6	1.8	-178.0	78.6	17.5
.752	.950	-120.6	98.1	2.8	-157.8	77.2	11.4
.790	.900	-122.8	95.2	4.3	-162.2	75.7	11.4
.827	.950	-125.5	91.9	6.4	-153.7	74.2	12.6
.864	1.000	-128.8	87.7	9.3	-136.3	72.8	14.2
.903	1.050	-133.0	81.9	13.4	-154.3	71.4	16.0
.935	1.100	-138.2	72.8	19.1	-152.0	70.1	18.2
.970	1.150	-144.8	56.1	28.2	-148.8	69.3	21.1
1.004	1.200	-153.2	26.0	42.7	-144.1	69.1	24.6
1.033	1.250	-164.3	-8.2	63.8	-135.0	68.7	28.8
1.070	1.300	178.9	-29.8	91.5	-104.1	67.5	35.3
1.134	1.400	134.8	-47.6	141.9	3.6	57.1	125.2
1.252	1.600	74.2	-50.8	158.5	16.3	-37.4	-156.5
1.360	1.800	-44.2	108.2	41.4	-80.3	-91.9	-103.3
1.457	2.000	-122.8	124.6	-8.8	-156.4	166.3	10.6

REC = 28 HEADING = 75. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/HAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	1.634E-01	9.866E-01	9.915E-01	5.246E-03	1.228E-04	2.503E-04
.237	.250	1.255E-01	9.924E-01	9.863E-01	1.378E-02	4.207E-04	5.757E-04
.282	.300	1.051E-01	1.159E+00	9.915E-01	3.136E-02	1.216E-03	2.854E-03
.325	.350	9.715E-02	1.243E+00	9.933E-01	5.655E-02	2.699E-03	5.626E-03
.367	.400	9.111E-02	1.231E+00	1.001E+00	1.344E-01	4.958E-03	8.203E-03
.409	.450	8.629E-02	1.179E+00	9.944E-01	2.641E-01	8.090E-03	1.110E-02
.449	.500	8.186E-02	1.089E+00	9.749E-01	5.143E-01	1.214E-02	1.468E-02
.489	.550	7.789E-02	1.003E+00	9.402E-01	1.006E+00	1.707E-02	1.905E-02
.527	.600	7.259E-02	9.217E-01	8.986E-01	1.986E+00	2.277E-02	2.394E-02
.565	.625	7.001E-02	8.853E-01	8.565E-01	2.791E+00	2.555E-02	2.626E-02
.604	.650	5.732E-02	8.515E-01	9.203E-01	3.894E+00	2.904E-02	2.810E-02
.642	.675	6.449E-02	8.181E-01	7.806E-01	5.330E+00	3.231E-02	2.895E-02
.680	.700	6.154E-02	7.806E-01	7.387E-01	7.114E+00	3.569E-02	2.823E-02
.718	.725	5.845E-02	7.383E-01	7.134E-01	8.526E+00	4.059E-02	2.525E-02
.755	.750	5.527E-02	5.776E-01	6.866E-01	9.715E+00	4.550E-02	2.268E-02
.793	.800	4.863E-02	5.211E-01	6.289E-01	9.327E+00	5.639E-02	1.657E-02
.831	.850	4.126E-02	3.737E-01	5.562E-01	7.505E+00	6.774E-02	1.640E-02
.869	.900	3.489E-02	2.602E-01	4.996E-01	5.456E+00	7.897E-02	1.943E-02
.907	.950	2.823E-02	1.704E-01	4.305E-01	3.856E+00	8.937E-02	2.228E-02
.945	1.000	2.241E-02	1.098E-01	3.606E-01	2.650E+00	9.804E-02	2.345E-02
.983	1.050	1.647E-02	6.301E-02	2.922E-01	1.767E+00	1.040E-01	2.257E-02
1.021	1.100	1.179E-02	3.181E-02	2.275E-01	1.102E+00	1.062E-01	1.934E-02
1.059	1.150	8.049E-03	1.407E-02	1.691E-01	6.237E-01	1.039E-01	1.580E-02
1.097	1.200	5.276E-03	6.961E-03	1.192E-01	3.314E-01	9.665E-02	1.119E-02
1.135	1.250	3.391E-03	7.150E-03	7.944E-02	1.122E-01	8.455E-02	6.807E-03
1.173	1.300	2.266E-03	1.101E-02	5.019E-02	2.932E-02	6.879E-02	3.319E-03
1.211	1.400	1.251E-03	1.657E-02	1.922E-02	5.590E-02	3.316E-02	3.413E-04
1.249	1.500	5.835E-04	2.830E-03	3.742E-03	1.184E-01	7.900E-03	3.178E-03
1.287	1.600	6.889E-05	2.483E-03	9.364E-03	1.783E-04	1.368E-02	5.376E-04
1.325	1.700	1.110E-04	.584E-04	3.789E-03	3.156E-02	1.672E-03	1.056E-03

PHASE (MOTION-AVEHT)

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
192	200	-137.9	89.5	.2	86.0	85.5	16.5
237	250	-129.9	89.0	.2	85.3	84.3	16.1
282	300	-123.2	91.1	.0	86.5	81.6	.8
325	350	-119.5	91.5	-.2	85.8	81.3	-.7
367	400	-117.2	91.2	-.2	84.2	81.8	2.5
409	450	-115.7	90.8	-.3	83.0	82.2	7.3
449	500	-114.9	90.2	-.2	82.8	82.2	12.7
483	550	-114.6	89.5	-.2	84.4	81.8	18.5
527	600	-114.7	88.9	-.2	88.8	81.0	24.9
545	635	-114.8	88.8	-.2	92.5	80.4	28.7
564	650	-115.1	88.9	-.3	91.6	79.7	32.9
582	675	-115.4	89.3	-.4	104.2	78.9	37.5
600	700	-115.9	90.3	-.6	112.7	77.9	42.4
618	725	-116.4	92.2	-.5	122.9	77.2	46.6
635	750	-117.1	94.2	-.5	133.8	76.5	48.5
670	800	-118.5	97.2	-.4	153.8	74.8	42.8
703	850	-120.4	97.6	-.1	168.6	72.8	31.2
735	900	-122.6	96.1	.3	178.3	70.6	24.2
765	950	-125.4	93.4	1.0	-175.2	68.1	21.6
796	1000	-128.8	89.5	2.0	-170.5	65.4	21.0
825	1050	-133.2	83.7	3.7	-166.8	62.6	21.6
853	1100	-138.3	74.4	6.0	-163.3	59.5	23.0
880	1150	-146.0	57.2	9.5	-159.3	56.1	25.0
907	1200	-155.5	25.0	14.5	-153.6	52.5	28.1
932	1250	-168.1	-13.4	21.5	-142.5	48.5	33.0
955	1300	175.7	-36.2	31.7	-112.5	43.9	41.5
1001	1400	136.2	-52.3	65.7	-14.6	30.3	110.8
1073	1500	77.1	-56.9	159.0	8.8	-70.9	-157.7
1140	1600	-37.4	105.8	-79.0	103.4	-127.5	-107.7
1185	2000	-119.1	121.7	-67.4	-164.9	131.6	6.8

REC = 28 HEADING = 75. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	1.634E-01	9.866E-01	9.916E-01	5.246E-03	1.228E-04	2.503E-04
.237	.250	1.235E-01	9.924E-01	9.863E-01	1.378E-02	4.207E-04	5.757E-04
.282	.300	1.061E-01	1.159E+00	9.915E-01	3.136E-02	1.216E-03	2.854E-03
.325	.350	9.715E-02	1.243E+00	9.993E-01	6.555E-02	2.699E-03	5.625E-03
.367	.400	9.111E-02	1.231E+00	1.001E+00	1.344E-01	4.958E-03	8.203E-03
.409	.450	8.688E-02	1.176E+00	9.944E-01	2.641E-01	8.000E-03	1.112E-02
.449	.500	8.166E-02	1.089E+00	9.749E-01	5.143E-01	1.214E-02	1.468E-02
.488	.550	7.733E-02	1.003E+00	9.402E-01	1.006E+00	1.777E-02	1.905E-02
.527	.600	7.293E-02	9.217E-01	8.886E-01	1.986E+00	2.277E-02	2.394E-02
.565	.625	6.851E-02	8.853E-01	8.565E-01	2.791E+00	2.585E-02	2.626E-02
.603	.650	6.409E-02	8.513E-01	8.203E-01	3.894E+00	2.944E-02	2.815E-02
.641	.675	6.154E-02	8.181E-01	7.806E-01	5.330E+00	3.231E-02	2.895E-02
.679	.700	5.866E-02	7.806E-01	7.387E-01	7.014E+00	3.569E-02	2.823E-02
.717	.725	5.527E-02	6.776E-01	6.866E-01	8.626E+00	4.000E-02	2.625E-02
.755	.800	4.863E-02	5.211E-01	6.289E-01	9.527E+01	5.639E-02	1.657E-02
.793	.850	4.168E-02	3.737E-01	5.662E-01	7.505E+00	6.774E-02	1.644E-02
.831	.900	3.489E-02	2.602E-01	4.996E-01	5.456E+00	7.897E-02	1.943E-02
.869	.950	2.823E-02	1.744E-01	4.305E-01	3.866E+00	8.937E-02	2.228E-02
.907	1.000	2.281E-02	1.094E-01	3.606E-01	2.560E+00	9.804E-02	2.345E-02
.945	1.050	1.647E-02	6.301E-02	2.922E-01	1.767E+00	1.040E-01	2.257E-02
.983	1.100	1.178E-02	3.181E-02	2.275E-01	1.102E+00	1.082E-01	1.984E-02
.997	1.150	8.049E-03	1.407E-02	1.691E-01	6.237E-01	1.039E-01	1.584E-02
.997	1.200	5.276E-03	5.961E-03	1.192E-01	3.014E-01	9.665E-02	1.119E-02
.992	1.250	3.391E-03	7.150E-03	7.944E-02	1.122E-01	8.465E-02	6.807E-03
.955	1.300	2.266E-03	1.101E-02	5.019E-02	2.982E-02	6.879E-02	3.319E-03
1.001	1.400	1.281E-03	1.657E-02	1.922E-02	5.590E-02	3.366E-02	3.413E-04
1.073	1.600	5.883E-04	2.830E-03	3.742E-03	1.184E-01	7.930E-03	3.178E-03
1.140	1.800	6.889E-05	2.483E-03	9.364E-03	1.783E-04	1.368E-02	5.376E-04
1.185	2.000	1.170E-04	4.584E-04	3.789E-03	3.156E-02	1.672E-03	1.056E-03

PHASE (MOTION-WAVEHT)

NE	W	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
192	200	-127.9	89.5	.2	85.0	85.5	16.5
237	250	-128.9	89.6	.2	85.3	84.3	16.1
282	300	-128.2	91.1	.0	86.5	81.6	.8
325	350	-119.5	91.5	.2	85.8	81.3	.7
367	400	-117.2	91.2	.2	84.2	81.8	2.5
409	450	-115.7	90.8	.3	83.0	82.2	7.3
449	500	-114.9	90.2	.2	82.8	82.2	12.7
488	550	-114.6	89.5	.2	84.4	81.8	18.5
527	600	-114.7	88.9	.2	88.8	81.0	24.9
565	625	-114.8	88.8	.2	92.5	80.4	28.7
594	650	-115.1	88.9	.3	97.6	79.7	32.9
632	675	-115.4	89.3	.4	104.2	78.9	37.5
669	700	-115.9	90.3	.6	112.7	77.9	42.4
693	725	-115.4	92.2	.5	122.9	77.2	46.6
735	750	-117.1	94.2	.5	133.8	76.5	48.5
769	800	-115.5	97.2	.4	153.8	74.8	42.8
793	850	-120.4	97.6	.1	168.6	72.8	31.2
735	900	-122.6	96.1	.3	178.3	70.6	24.2
765	950	-127.4	93.4	1.0	175.2	68.1	21.6
795	1000	-128.8	89.5	2.0	170.5	65.4	21.0
825	1050	-132.2	83.7	3.7	166.8	62.6	21.6
853	1100	-138.8	74.4	6.0	153.3	59.5	23.0
880	1150	-148.0	57.2	9.5	159.3	56.1	25.0
907	1200	-152.5	25.0	14.5	153.6	52.5	28.1
932	1250	-168.1	-13.4	21.5	142.5	48.5	33.0
955	1300	175.7	-36.2	31.7	112.5	43.9	41.5
978	1350	136.2	-52.3	65.7	-14.6	30.3	110.8
1001	1400	77.1	-55.8	159.0	8.8	-70.9	-157.7
1023	1450	-37.4	105.8	-79.0	103.4	-127.5	-107.7
1045	1500	-115.1	121.7	-67.4	-164.9	131.6	6.8

REC = 29 HEADING = 75. DEG SHIP SPEED = 20. KNOTS

RAO (MOTION/VALENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	1.724E-01	1.030E+00	9.890E-01	5.202E-03	8.206E-05	1.978E-04
.233	.250	1.311E-01	1.045E+00	9.827E-01	1.359E-02	3.290E-04	4.671E-04
.276	.300	1.150E-01	1.186E+00	9.849E-01	3.009E-02	1.633E-03	2.545E-03
.317	.350	1.071E-01	1.289E+00	9.914E-01	6.250E-02	2.508E-03	5.696E-03
.357	.400	1.021E-01	1.299E+00	9.917E-01	1.243E-01	4.713E-03	8.627E-03
.395	.450	9.830E-02	1.257E+00	9.828E-01	2.395E-01	7.740E-03	1.187E-02
.432	.500	9.484E-02	1.187E+00	9.620E-01	4.528E-01	1.151E-02	1.589E-02
.463	.550	9.122E-02	1.105E+00	9.276E-01	8.470E-01	1.629E-02	2.095E-02
.502	.600	8.706E-02	1.023E+00	8.785E-01	1.574E+00	2.166E-02	2.705E-02
.519	.625	8.473E-02	9.833E-01	8.486E-01	2.137E+00	2.455E-02	3.038E-02
.535	.650	8.220E-02	9.450E-01	8.154E-01	2.888E+00	2.756E-02	3.375E-02
.551	.675	7.947E-02	9.103E-01	7.791E-01	3.872E+00	3.065E-02	3.688E-02
.567	.700	7.652E-02	8.761E-01	7.401E-01	5.118E+00	3.379E-02	3.948E-02
.582	.725	7.356E-02	8.412E-01	6.988E-01	6.615E+00	3.694E-02	4.105E-02
.597	.750	7.000E-02	8.021E-01	6.558E-01	8.263E+00	4.008E-02	4.123E-02
.626	.800	6.273E-02	7.032E-01	5.940E-01	1.100E+01	4.886E-02	3.765E-02
.654	.850	5.487E-02	5.572E-01	5.307E-01	1.160E+01	5.797E-02	3.057E-02
.680	.900	4.659E-02	4.015E-01	4.656E-01	1.017E+01	6.665E-02	2.603E-02
.705	.950	3.846E-02	2.690E-01	3.998E-01	7.990E+00	7.27E-02	2.490E-02
.728	1.000	3.052E-02	1.675E-01	3.348E-01	5.878E+00	8.012E-02	2.498E-02
.750	1.050	2.322E-02	9.489E-02	2.724E-01	4.096E+00	8.37E-02	2.437E-02
.771	1.100	1.897E-02	4.720E-02	2.140E-01	2.677E+00	8.37E-02	2.224E-02
.791	1.150	1.470E-02	2.014E-02	1.612E-01	1.600E+00	8.041E-02	1.955E-02
.803	1.200	7.790E-03	9.061E-03	1.151E-01	8.327E-01	7.353E-02	1.385E-02
.825	1.250	5.121E-03	8.921E-03	7.672E-02	3.458E-01	6.343E-02	8.935E-03
.841	1.300	3.524E-03	1.445E-02	4.668E-02	1.002E-01	5.102E-02	4.672E-03
.867	1.400	2.801E-03	2.468E-02	1.117E-02	1.104E-01	2.479E-02	4.833E-04
.904	1.600	1.219E-03	5.495E-03	6.840E-03	3.585E-01	4.192E-03	4.659E-03
.919	1.800	1.682E-04	4.436E-03	8.595E-03	1.161E-02	1.026E-02	1.481E-03
.913	2.000	3.682E-04	1.475E-03	1.259E-03	1.728E-01	1.076E-03	1.758E-03

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
189	200	-137.9	89.2	.2	84.6	67.9	23.9
233	250	-128.8	89.4	.1	83.9	73.9	22.2
276	300	-123.1	90.6	.0	84.9	74.8	6.3
317	350	-119.4	91.1	.1	84.4	75.0	2.9
354	400	-117.1	90.9	.2	82.7	77.4	4.9
395	450	-115.6	90.5	.3	81.0	78.5	8.7
432	500	-114.8	89.8	.3	80.2	78.9	13.2
463	550	-114.4	89.0	.4	80.5	78.7	17.9
502	600	-114.5	88.1	.6	82.8	78.0	22.9
519	625	-114.7	87.7	.7	84.8	77.4	25.6
535	650	-114.9	87.4	.9	87.6	76.7	28.5
551	675	-115.2	87.1	.1	91.3	75.8	31.7
567	700	-115.6	87.1	.3	95.9	74.9	35.1
582	725	-116.1	87.3	.7	101.6	73.8	38.7
597	750	-116.7	87.9	.2	108.4	72.5	42.4
626	800	-118.2	90.7	.4	124.7	70.5	48.3
654	850	-120.0	93.4	.8	141.0	68.2	48.5
683	900	-122.3	94.6	.3	154.4	65.5	43.5
705	950	-125.1	94.0	.7	164.5	62.5	37.4
728	1000	-128.6	91.6	.1	172.1	59.2	33.2
750	1050	-133.0	87.1	.3	178.0	55.5	31.1
771	1100	-138.7	79.0	.4	177.0	51.4	30.5
791	1150	-146.2	63.3	.9	172.1	47.0	31.1
809	1200	-155.2	31.5	.0	166.2	42.1	32.8
825	1250	-163.6	-9.6	.3	156.9	36.6	36.1
841	1300	173.4	-34.3	.7	135.2	30.3	42.1
867	1400	134.7	-52.9	1.7	-30.1	13.3	97.4
904	1500	80.9	-58.0	141.7	.5	-97.2	-157.4
919	1600	-46.1	104.3	167.4	74.5	-171.0	-113.5
913	2000	-111.8	122.6	-97.9	178.4	91.1	2.8

REC = 30 HEADING = 75. DEG SHIP SPEED = 25. KNOTS MOTION/RAVEHT)**2

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
435	200	1.821E-01	1.081E+00	9.879E-01	5.183E-03	7.866E-05	1.471E-04
436	250	1.405E-01	1.102E+00	9.808E-01	1.348E-02	2.893E-04	3.505E-04
437	300	1.271E-01	1.224E+00	9.800E-01	2.335E-02	9.437E-04	1.997E-03
438	350	1.183E-01	1.346E+00	9.858E-01	5.955E-02	2.891E-03	5.355E-03
439	400	1.108E-01	1.373E+00	9.846E-01	1.166E-01	4.573E-03	8.597E-03
440	450	1.235E-01	1.357E+00	9.742E-01	2.211E-01	7.543E-03	1.217E-02
441	500	1.105E-01	1.303E+00	9.526E-01	4.085E-01	1.131E-02	1.663E-02
442	550	1.035E-01	1.235E+00	9.184E-01	7.386E-01	1.535E-02	2.236E-02
443	600	1.054E-01	1.150E+00	8.714E-01	1.210E+00	2.105E-02	2.958E-02
444	625	1.036E-01	1.103E+00	8.432E-01	1.730E+00	2.386E-02	3.376E-02
445	650	1.055E-01	1.067E+00	8.123E-01	2.272E+00	2.699E-02	3.826E-02
446	675	9.942E-02	1.026E+00	7.787E-01	2.963E+00	2.981E-02	4.302E-02
447	700	9.643E-02	9.875E-01	7.423E-01	3.828E+00	3.200E-02	4.791E-02
448	725	9.342E-02	9.484E-01	7.052E-01	4.892E+00	3.602E-02	5.275E-02
449	750	9.040E-02	9.104E-01	6.659E-01	6.161E+00	3.914E-02	5.721E-02
450	800	8.253E-02	8.312E-01	5.843E-01	9.218E+00	4.523E-02	6.390E-02
451	850	7.374E-02	7.368E-01	5.059E-01	1.236E+01	5.144E-02	6.567E-02
452	900	6.444E-02	6.166E-01	4.409E-01	1.431E+01	5.877E-02	6.183E-02
453	950	5.401E-02	4.703E-01	3.763E-01	1.443E+01	6.435E-02	5.417E-02
454	1.000	4.381E-02	3.244E-01	3.133E-01	1.292E+01	6.878E-02	4.600E-02
455	1.050	3.405E-02	1.998E-01	2.535E-01	1.047E+01	7.065E-02	3.877E-02
456	1.100	2.523E-02	1.070E-01	1.980E-01	7.768E+00	6.977E-02	3.228E-02
457	1.150	1.785E-02	4.739E-02	1.480E-01	5.235E+00	6.588E-02	2.593E-02
458	1.200	1.242E-02	1.693E-02	1.045E-01	3.116E+00	5.909E-02	1.944E-02
459	1.250	8.158E-03	8.747E-03	6.824E-02	1.541E+00	4.990E-02	1.306E-02
460	1.300	5.865E-03	1.471E-02	3.995E-02	5.614E-01	3.918E-02	7.381E-03
461	1.400	4.615E-03	3.708E-02	7.115E-03	2.280E-01	1.790E-02	6.293E-04
462	1.500	3.612E-03	1.715E-02	6.613E-03	1.843E+00	2.373E-03	5.592E-03
463	1.600	3.063E-04	5.277E-03	5.267E-03	2.912E-01	5.746E-03	2.961E-03
464	1.800	1.604E-03	1.323E-02	8.357E-04	1.708E+00	4.094E-04	5.268E-03

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.185	.200	-137.9	89.0	.1	83.1	40.8	33.8
.229	.250	-128.8	89.1	.1	82.3	59.0	30.5
.269	.300	-123.0	90.1	-.0	82.7	65.9	12.7
.303	.330	-119.3	90.7	-.1	82.3	69.6	6.9
.345	.400	-116.9	90.6	-.2	80.4	72.4	7.8
.381	.450	-115.4	90.1	-.3	78.5	74.2	10.7
.415	.500	-114.6	89.4	-.4	77.0	75.0	14.4
.447	.550	-114.2	88.6	-.5	75.4	75.1	18.3
.478	.600	-114.3	87.5	-.9	77.1	74.5	22.2
.492	.625	-114.4	86.9	-1.1	77.9	73.9	24.2
.505	.650	-114.7	86.3	-1.4	79.2	73.2	26.3
.520	.675	-115.0	85.7	-1.7	81.0	72.4	28.4
.534	.700	-115.4	85.2	-2.0	83.3	71.4	30.7
.545	.725	-115.9	84.7	-2.5	86.1	70.3	33.1
.559	.750	-116.4	84.3	-2.9	89.5	69.1	35.6
.583	.800	-117.8	83.9	-4.1	97.9	66.3	40.9
.605	.850	-119.6	84.6	-5.3	108.4	63.3	46.1
.625	.900	-121.8	86.1	-6.4	120.0	60.4	50.1
.643	.950	-124.6	87.3	-7.7	131.0	57.1	51.8
.660	1.000	-128.1	87.7	-9.0	140.6	53.4	51.5
.676	1.050	-132.5	86.5	-10.5	148.7	49.3	49.9
.689	1.100	-133.3	82.7	-12.1	155.5	44.8	48.1
.701	1.150	-145.9	74.2	-13.6	161.6	39.9	46.8
.711	1.200	-156.2	53.6	-15.1	167.8	34.5	46.3
.719	1.250	-170.2	7.8	-16.4	175.6	28.4	46.8
.726	1.300	171.8	-31.4	-17.2	-170.3	21.6	48.8
.734	1.400	172.2	-56.0	-13.2	-65.2	3.6	70.4
.730	1.500	83.0	-66.8	125.1	-26.5	-114.3	-138.1
.694	1.800	-53.0	102.7	118.8	-3.7	168.9	-113.1
.641	2.000	-111.5	83.0	-106.2	97.8	66.6	33.5

REC = 31 HEADING = 90. DEG SHIP SPEED = 5. KNOTS

RAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	7.091E-02	9.600E-01	1.001E+00	5.869E-03	1.378E-05	2.508E-06
.250	.250	3.461E-02	9.606E-01	1.001E+00	1.573E-02	1.289E-05	3.138E-06
.300	.300	2.049E-02	1.181E+00	1.020E+00	3.856E-02	4.109E-06	3.052E-04
.350	.350	1.328E-02	1.209E+00	1.041E+00	8.460E-02	1.015E-06	3.269E-04
.400	.400	9.168E-03	1.151E+00	1.061E+00	1.785E-01	1.793E-07	1.351E-04
.450	.450	6.623E-03	1.064E+00	1.076E+00	3.579E-01	2.093E-07	2.388E-06
.500	.500	4.943E-03	9.735E-01	1.081E+00	8.082E-01	2.263E-06	1.996E-04
.550	.550	3.795E-03	8.980E-01	1.070E+00	2.010E+00	1.160E-05	1.391E-03
.600	.600	2.974E-03	8.380E-01	1.040E+00	6.041E+00	3.801E-05	6.234E-03
.625	.625	2.713E-03	7.949E-01	1.055E+00	1.000E+01	4.778E-05	1.043E-02
.650	.650	2.474E-03	5.789E-01	1.072E+00	1.225E+01	6.376E-05	1.288E-02
.675	.675	2.265E-03	5.623E-01	1.090E+00	9.953E+00	8.870E-05	1.074E-02
.700	.700	2.073E-03	5.068E-01	1.111E+00	6.932E+00	1.264E-04	7.605E-03
.725	.725	1.895E-03	4.836E-01	1.135E+00	4.937E+00	1.824E-04	5.497E-03
.750	.750	1.744E-03	4.695E-01	1.160E+00	3.070E+00	2.641E-04	4.258E-03
.800	.800	1.463E-03	4.428E-01	1.218E+00	1.690E+00	5.487E-04	3.055E-03
.850	.850	1.241E-03	4.117E-01	1.282E+00	1.149E+00	1.107E-03	2.536E-03
.900	.900	1.051E-03	3.771E-01	1.345E+00	7.037E-01	2.130E-03	2.261E-03
.950	.950	8.913E-04	3.407E-01	1.396E+00	4.945E-01	3.845E-03	2.087E-03
1.000	1.000	7.863E-04	2.987E-01	1.427E+00	3.044E-01	6.698E-03	1.751E-03
1.050	1.050	6.763E-04	2.628E-01	1.377E+00	2.923E-01	1.054E-02	1.581E-03
1.100	1.100	5.601E-04	2.294E-01	1.210E+00	2.338E-01	1.404E-02	1.519E-03
1.150	1.150	4.505E-04	2.017E-01	9.693E-01	1.910E-01	1.555E-02	1.527E-03
1.200	1.200	3.605E-04	1.770E-01	7.337E-01	1.589E-01	1.489E-02	1.580E-03
1.250	1.250	2.913E-04	1.554E-01	5.445E-01	1.346E-01	1.301E-02	1.662E-03
1.300	1.300	2.297E-04	1.366E-01	4.035E-01	1.162E-01	1.082E-02	1.758E-03
1.400	1.400	1.995E-04	9.622E-02	2.066E-01	7.133E-02	5.648E-03	1.635E-03
1.500	1.500	1.217E-04	4.594E-02	6.055E-02	4.873E-02	1.915E-03	1.480E-03
1.600	1.600	6.453E-05	1.813E-02	1.791E-02	2.001E-02	7.893E-04	1.111E-03
2.000	2.000	2.941E-05	5.799E-03	5.357E-03	8.550E-03	2.975E-04	7.795E-04

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-173.5	89.8	.1	90.8	-139.0	13.3
250	250	-170.6	90.0	.1	91.6	-130.8	14.7
300	300	-168.2	91.6	-2	94.5	-128.1	-59.1
350	350	-166.1	91.7	-4	96.0	-131.1	-56.0
400	400	-164.4	91.3	-4	97.3	-128.9	-71.7
450	450	-162.9	91.0	-3	99.4	-58.6	-120.3
500	500	-161.6	90.8	-1	103.1	-39.3	119.9
550	550	-160.4	91.2	.2	110.8	-34.1	122.8
600	600	-159.4	93.9	.4	129.8	-28.9	139.6
625	625	-159.6	97.9	.7	149.1	-20.2	159.2
650	650	-159.7	101.1	.9	174.8	-12.2	-172.7
675	675	-159.9	103.5	1.2	-161.7	-5.3	-145.3
700	700	-160.0	97.9	1.6	-145.9	.6	-125.1
725	725	-160.1	95.7	2.0	-136.3	5.8	-111.1
750	750	-160.3	94.1	2.5	-130.5	10.3	-101.1
800	800	-160.5	91.8	3.7	-124.5	18.5	-88.6
850	850	-160.8	89.7	5.4	-122.4	26.5	-82.1
900	900	-160.9	87.7	7.8	-122.2	35.1	-79.1
950	950	-160.9	85.4	10.8	-123.2	44.9	-78.1
1000	1000	-161.6	84.7	16.7	-124.0	60.5	-71.3
1050	1050	-161.9	83.6	24.3	-125.6	78.9	-65.0
1100	1100	-162.3	82.2	32.6	-127.9	98.8	-59.9
1150	1150	-163.5	80.3	40.0	-130.9	117.8	-56.0
1200	1200	-165.8	78.0	45.5	-134.5	134.3	-53.4
1250	1250	-168.8	75.2	49.3	-138.7	147.5	-52.0
1300	1300	-172.2	71.8	51.7	-143.5	157.8	-51.7
1400	1400	180.0	66.3	50.1	-151.1	169.8	-48.8
1500	1500	187.1	50.7	42.3	-168.7	176.2	-47.1
1600	1600	156.4	33.0	23.1	174.5	171.3	-53.6
2000	2000	140.4	4.5	-6	152.0	156.9	-64.0

REC = 32 HEADING = 90. DEG SHIP SPEED = 10. KNOTS

HE	W	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.200	.200	7.093E-02	9.570E-01	9.979E-01	5.952E-03	2.328E-05	9.002E-06
.250	.250	3.463E-02	9.583E-01	9.979E-01	1.567E-02	2.678E-05	9.954E-06
.300	.300	2.051E-02	1.171E+00	1.017E+00	3.791E-02	1.567E-05	3.998E-04
.350	.350	1.330E-02	1.201E+00	1.038E+00	8.293E-02	1.588E-05	4.056E-04
.400	.400	9.182E-03	1.147E+00	1.057E+00	1.732E-01	1.990E-05	1.702E-04
.450	.450	6.635E-03	1.062E+00	1.072E+00	3.603E-01	2.594E-05	3.809E-06
.500	.500	4.965E-03	9.734E-01	1.076E+00	7.815E-01	3.806E-05	1.745E-04
.550	.550	3.803E-03	9.969E-01	1.065E+00	1.058E+00	6.879E-05	1.254E-03
.600	.600	2.983E-03	8.236E-01	1.036E+00	4.775E+00	1.382E-04	4.940E-03
.625	.625	2.721E-03	7.754E-01	1.050E+00	6.823E+00	1.554E-04	7.022E-03
.650	.650	2.486E-03	6.868E-01	1.067E+00	7.642E+00	1.809E-04	7.800E-03
.675	.675	2.273E-03	5.982E-01	1.085E+00	6.558E+00	2.173E-04	6.762E-03
.700	.700	2.081E-03	5.413E-01	1.106E+00	4.801E+00	2.684E-04	5.247E-03
.725	.725	1.906E-03	5.080E-01	1.129E+00	3.323E+00	3.391E-04	4.088E-03
.750	.750	1.749E-03	4.855E-01	1.154E+00	2.587E+00	4.359E-04	3.338E-03
.800	.800	1.473E-03	4.491E-01	1.211E+00	1.516E+00	7.450E-04	2.561E-03
.850	.850	1.244E-03	4.134E-01	1.274E+00	9.763E-01	1.303E-03	2.217E-03
.900	.900	1.058E-03	3.765E-01	1.337E+00	6.704E-01	2.254E-03	2.037E-03
.950	.950	8.918E-04	3.388E-01	1.367E+00	4.796E-01	3.796E-03	1.923E-03
1.000	1.000	7.853E-04	2.964E-01	1.415E+00	3.675E-01	6.067E-03	1.589E-03
1.050	1.050	5.783E-04	2.595E-01	1.365E+00	2.896E-01	9.030E-03	1.418E-03
1.100	1.100	5.670E-04	2.272E-01	1.202E+00	2.335E-01	1.177E-02	1.352E-03
1.150	1.150	4.611E-04	1.989E-01	9.598E-01	1.919E-01	1.309E-02	1.357E-03
1.200	1.200	3.713E-04	1.742E-01	7.199E-01	1.604E-01	1.276E-02	1.408E-03
1.250	1.250	3.004E-04	1.525E-01	5.280E-01	1.352E-01	1.149E-02	1.489E-03
1.300	1.300	2.457E-04	1.338E-01	3.878E-01	1.176E-01	9.723E-03	1.586E-03
1.400	1.400	2.016E-04	9.412E-02	1.980E-01	8.024E-02	5.377E-03	1.478E-03
1.600	1.600	1.213E-04	4.496E-02	5.870E-02	4.238E-02	1.975E-03	1.371E-03
1.800	1.800	6.427E-05	1.782E-02	1.756E-02	1.993E-02	8.261E-04	1.071E-03
2.000	2.000	2.934E-05	5.742E-03	5.303E-03	8.448E-03	3.060E-04	7.762E-04

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-173.5	89.7	.1	90.7	-100.8	12.1
.250	.250	-170.6	89.9	.1	91.8	-89.1	13.6
.300	.300	-168.2	91.5	-	96.0	-52.5	-42.3
.350	.350	-166.1	91.6	-	97.9	-22.3	-50.3
.400	.400	-164.4	91.3	-	99.5	-6.5	-54.7
.450	.450	-162.9	90.9	-	102.0	-3.3	-53.7
.500	.500	-161.6	90.8	.1	105.6	-9.0	123.0
.550	.550	-160.5	91.2	.3	115.8	-17.3	129.6
.600	.600	-159.5	93.6	.4	136.4	-22.2	147.8
.625	.625	-159.6	96.8	.7	154.1	-16.4	165.4
.650	.650	-159.8	99.1	.9	174.9	-10.6	171.5
.675	.675	-159.9	99.2	1.2	-166.3	-5.1	-149.0
.700	.700	-160.0	97.8	1.6	-152.6	5.1	-130.8
.725	.725	-160.2	96.2	2.0	-143.4	9.7	-117.1
.750	.750	-160.3	94.9	2.5	-137.4	18.1	-106.8
.800	.800	-160.5	92.6	3.8	-130.8	26.1	-93.4
.850	.850	-160.8	90.5	5.6	-128.0	34.2	-86.3
.900	.900	-160.9	88.4	8.0	-127.2	43.2	-83.0
.950	.950	-160.9	86.0	11.0	-127.8	57.5	-81.9
1.000	1.000	-161.8	85.2	16.9	-128.4	74.5	-75.1
1.050	1.050	-162.3	84.1	24.5	-129.8	93.1	-68.7
1.100	1.100	-162.8	82.6	32.9	-131.9	111.2	-53.4
1.150	1.150	-163.9	80.7	40.4	-134.6	127.2	-59.3
1.200	1.200	-165.9	78.3	46.1	-138.0	140.3	-56.6
1.250	1.250	-168.6	75.4	49.9	-141.9	150.6	-55.2
1.300	1.300	-171.7	72.0	52.0	-146.3	162.3	-54.9
1.400	1.400	-179.4	66.4	49.9	-153.6	170.6	-52.1
1.600	1.600	167.4	50.5	41.7	-170.7	168.0	-50.6
1.800	1.800	156.6	32.6	22.1	172.6	155.4	-56.8
2.000	2.000	140.5	3.9	-1.6	159.1		-66.4

REC = 33

HEADING = 90. DEG
SHIP SPEED = 15. KNOTS
RAO (MOTION/AVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	7.094E-02	9.527E-01	9.951E-01	5.827E-03	5.184E-05	1.714E-05
.250	.250	3.494E-02	9.547E-01	9.949E-01	1.559E-02	6.587E-05	1.892E-05
.300	.300	2.022E-02	1.156E+00	1.019E+00	3.694E-02	5.998E-05	5.359E-04
.350	.350	1.331E-02	1.186E+00	1.036E+00	8.096E-02	7.072E-05	5.255E-04
.400	.400	9.196E-03	1.138E+00	1.056E+00	1.692E-01	8.444E-05	2.289E-04
.450	.450	6.647E-03	1.058E+00	1.070E+00	3.499E-01	9.874E-05	1.231E-05
.500	.500	4.970E-03	9.722E-01	1.073E+00	7.433E-01	1.221E-04	1.439E-04
.550	.550	3.844E-03	8.939E-01	1.062E+00	1.557E+00	1.774E-04	1.089E-03
.600	.600	2.990E-03	8.081E-01	1.035E+00	3.570E+00	2.998E-04	3.692E-03
.625	.625	2.732E-03	7.595E-01	1.049E+00	4.515E+00	3.222E-04	4.559E-03
.650	.650	2.493E-03	6.908E-01	1.066E+00	4.758E+00	3.544E-04	4.674E-03
.675	.675	2.281E-03	6.221E-01	1.084E+00	4.231E+00	3.989E-04	4.122E-03
.700	.700	2.089E-03	5.697E-01	1.105E+00	3.407E+00	4.591E-04	3.409E-03
.725	.725	1.933E-03	5.323E-01	1.127E+00	2.649E+00	5.395E-04	2.835E-03
.750	.750	1.734E-03	5.039E-01	1.152E+00	2.060E+00	6.456E-04	2.442E-03
.800	.800	1.247E-03	4.587E-01	1.269E+00	1.301E+00	9.657E-04	2.032E-03
.850	.850	1.055E-03	3.782E-01	1.330E+00	6.191E-01	2.383E-03	1.779E-03
.900	.900	8.921E-04	3.387E-01	1.378E+00	4.528E-01	3.761E-03	1.731E-03
.950	.950	7.855E-04	2.955E-01	1.404E+00	3.521E-01	5.532E-03	1.412E-03
1.000	1.000	6.793E-04	2.585E-01	1.358E+00	2.808E-01	7.784E-03	1.242E-03
1.050	1.050	5.732E-04	2.254E-01	1.203E+00	2.286E-01	9.931E-03	1.181E-03
1.100	1.100	4.709E-04	1.965E-01	9.647E-01	1.892E-01	1.113E-02	1.185E-03
1.150	1.150	3.845E-04	1.719E-01	7.191E-01	1.593E-01	1.109E-02	1.238E-03
1.200	1.200	3.093E-04	1.502E-01	5.201E-01	1.356E-01	1.018E-02	1.317E-03
1.250	1.250	2.513E-04	1.313E-01	3.764E-01	1.172E-01	8.912E-03	1.416E-03
1.300	1.300	2.021E-04	9.223E-02	1.894E-01	8.021E-02	5.243E-03	1.322E-03
1.400	1.400	1.299E-04	4.403E-02	5.655E-02	4.261E-02	2.564E-03	1.272E-03
1.500	1.500	6.401E-05	1.751E-02	1.716E-02	1.952E-02	8.679E-04	1.039E-03
2.000	2.000	2.923E-05	5.689E-03	5.244E-03	8.260E-03	3.147E-04	7.752E-04

PHASE (MOTION-WAVEHT)

RE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-173.5	89.5	.2	90.5	-80.0	14.1
.250	.250	-170.7	89.7	.2	92.1	-69.8	14.7
.300	.300	-168.2	91.4	-.1	97.5	-36.0	-30.5
.350	.350	-166.1	91.5	-.2	100.0	-14.2	-38.6
.400	.400	-164.4	91.2	-.1	102.1	-2.9	-42.5
.450	.450	-162.9	90.9	-.0	105.2	.1	-33.4
.500	.500	-161.6	90.7	.2	110.7	-3.9	128.1
.550	.550	-160.5	91.2	.3	121.5	-11.9	137.6
.600	.600	-159.5	93.4	.4	142.8	-13.5	156.0
.625	.625	-159.7	95.8	.7	158.4	-13.7	171.1
.650	.650	-159.8	97.5	.9	175.0	-8.9	170.4
.675	.675	-159.9	97.8	1.3	-170.2	-4.0	-151.9
.700	.700	-160.1	97.3	1.7	-158.7	.8	-135.8
.725	.725	-160.2	96.3	2.1	-150.4	5.5	-122.7
.750	.750	-160.3	95.2	2.6	-144.6	9.9	-112.4
.800	.800	-160.5	93.2	4.0	-137.6	18.2	-98.4
.850	.850	-160.8	91.1	5.8	-134.3	26.0	-90.8
.900	.900	-160.9	89.0	8.2	-133.1	33.6	-87.2
.950	.950	-161.0	86.7	11.3	-133.3	41.7	-86.1
1.000	1.000	-162.0	85.8	17.1	-133.7	54.6	-79.3
1.050	1.050	-162.6	84.7	24.5	-134.8	70.0	-72.8
1.100	1.100	-163.2	83.1	32.9	-136.7	87.0	-67.3
1.150	1.150	-164.3	81.2	40.8	-139.2	104.1	-63.0
1.200	1.200	-166.0	78.7	46.8	-142.2	119.6	-60.2
1.250	1.250	-168.4	75.8	50.7	-145.8	132.5	-58.7
1.300	1.300	-171.3	72.3	53.8	-150.0	143.0	-58.5
1.400	1.400	-178.9	66.6	57.2	-156.9	154.7	-55.8
1.600	1.600	167.8	50.3	41.1	-173.4	165.1	-54.3
1.800	1.800	156.7	32.2	27.2	170.0	164.9	-60.1
2.000	2.000	140.5	3.4	-2.5	147.4	154.0	-68.8

REC = 34 HEADING = 90. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/VAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	7.09E-02	9.479E-01	9.932E-01	5.802E-03	1.038E-04	2.483E-05
.250	.250	3.46E-02	9.503E-01	9.930E-01	1.553E-02	1.347E-04	2.848E-05
.300	.300	2.05E-02	1.137E+00	1.015E+00	3.608E-02	1.414E-04	6.898E-04
.350	.350	1.33E-02	1.171E+00	1.037E+00	7.914E-02	1.692E-04	6.744E-04
.400	.400	9.21E-03	1.128E+00	1.057E+00	1.661E-01	1.963E-04	3.082E-04
.450	.450	6.66E-03	1.053E+00	1.071E+00	3.447E-01	2.197E-04	3.080E-05
.500	.500	4.98E-03	9.721E-01	1.074E+00	7.313E-01	2.542E-04	1.108E-04
.550	.550	3.82E-03	8.978E-01	1.063E+00	1.609E+00	3.361E-04	1.011E-03
.600	.600	2.99E-03	8.150E-01	1.037E+00	3.328E+00	5.174E-04	3.410E-03
.625	.625	2.73E-03	7.675E-01	1.052E+00	4.087E+00	5.425E-04	4.078E-03
.650	.650	2.50E-03	7.017E-01	1.068E+00	4.245E+00	5.783E-04	4.090E-03
.675	.675	2.28E-03	6.355E-01	1.086E+00	3.790E+00	6.263E-04	3.596E-03
.700	.700	2.09E-03	5.823E-01	1.106E+00	3.096E+00	6.916E-04	2.979E-03
.725	.725	1.91E-03	5.426E-01	1.129E+00	2.447E+00	7.763E-04	2.495E-03
.750	.750	1.76E-03	5.117E-01	1.153E+00	1.931E+00	8.859E-04	2.169E-03
.800	.800	1.48E-03	4.626E-01	1.207E+00	1.247E+00	1.203E-03	1.836E-03
.850	.850	1.25E-03	4.195E-01	1.265E+00	8.227E-01	1.712E-03	1.711E-03
.900	.900	1.05E-03	3.781E-01	1.323E+00	6.110E-01	2.511E-03	1.664E-03
.950	.950	9.24E-04	3.376E-01	1.370E+00	4.321E-01	3.737E-03	1.644E-03
1.000	1.000	7.85E-04	2.940E-01	1.393E+00	3.542E-01	5.091E-03	1.320E-03
1.050	1.050	6.80E-04	2.562E-01	1.353E+00	2.843E-01	6.778E-03	1.146E-03
1.100	1.100	5.78E-04	2.234E-01	1.211E+00	2.827E-01	8.456E-03	1.075E-03
1.150	1.150	4.79E-04	1.947E-01	9.808E-01	1.935E-01	9.561E-03	1.073E-03
1.200	1.200	3.91E-04	1.696E-01	7.304E-01	1.632E-01	9.773E-03	1.118E-03
1.250	1.250	3.17E-04	1.477E-01	5.211E-01	1.393E-01	9.247E-03	1.196E-03
1.300	1.300	2.58E-04	1.288E-01	3.699E-01	1.205E-01	8.233E-03	1.295E-03
1.400	1.400	2.05E-04	9.028E-02	1.810E-01	8.43E-02	5.236E-03	1.217E-03
1.600	1.600	1.20E-04	4.303E-02	5.409E-02	4.328E-02	2.183E-03	1.194E-03
1.800	1.800	6.37E-05	1.716E-02	1.669E-02	1.971E-02	9.139E-04	1.012E-03
2.000	2.000	2.92E-05	5.611E-03	5.179E-03	8.223E-03	3.239E-04	7.789E-04

PHASE (MOTION-WAVEHT)

HE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-173.5	89.3	.2	90.0	-67.9	16.9
250	250	-173.7	89.5	.1	91.8	-59.1	16.4
300	300	-158.2	91.2	.0	98.1	-28.5	-22.1
350	350	-166.2	91.3	.1	100.9	-29.8	-32.9
400	400	-164.4	91.0	.0	103.0	-10.0	-19.9
450	450	-162.9	90.7	.1	106.2	2.9	125.7
500	500	-161.6	90.6	.3	111.9	.5	139.5
550	550	-160.5	91.1	.4	122.9	-8.1	158.0
600	600	-159.6	93.1	.4	144.1	-15.4	172.1
625	625	-159.7	93.5	.7	159.1	-11.1	-170.5
650	650	-159.8	97.2	1.0	174.8	-6.8	-153.2
675	675	-160.0	97.7	1.3	-171.3	-2.3	-137.9
700	700	-160.1	97.3	1.7	-160.5	2.1	-125.2
725	725	-160.2	96.5	2.2	-152.5	6.5	-114.9
750	750	-160.3	95.6	2.8	-146.8	10.7	-101.0
800	800	-160.5	93.6	4.2	-139.8	18.9	-93.4
850	850	-160.7	91.6	6.0	-135.5	25.2	-89.9
900	900	-160.9	89.5	8.4	-135.1	33.3	-89.0
950	950	-161.0	87.2	11.5	-135.2	40.5	-82.6
1000	1000	-162.1	86.3	17.1	-135.6	51.9	-76.3
1050	1050	-163.0	85.1	24.4	-136.7	65.5	-70.9
1100	1100	-163.7	83.6	32.8	-138.4	80.9	-66.6
1150	1150	-164.7	81.6	40.9	-140.7	96.7	-63.7
1200	1200	-165.2	79.1	47.5	-143.6	111.5	-62.3
1250	1250	-166.3	76.1	51.8	-147.0	124.3	-62.2
1300	1300	-171.0	72.5	54.0	-150.8	135.0	-59.7
1400	1400	-171.3	66.7	50.9	-157.5	147.0	-58.3
1500	1500	-168.2	50.2	40.7	-173.6	159.8	-63.6
1600	1600	-150.9	31.8	20.3	169.8	161.8	-71.2
1800	1800	140.6	2.7	-3.5	147.1	152.6	
2000	2000						

REC = 35 HEADING = 90. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/WAVEHT)**2

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	7.03E-02	9.43E-01	9.92E-01	5.77E-03	1.82E-04	3.08E-05
.250	.250	3.48E-02	9.45E-01	9.93E-01	1.54E-02	2.38E-04	3.70E-05
.300	.300	2.06E-02	1.11E+00	1.01E+00	3.52E-02	2.69E-04	8.38E-04
.350	.350	1.33E-02	1.15E+00	1.04E+00	7.72E-02	3.15E-04	8.30E-04
.400	.400	9.26E-03	1.11E+00	1.05E+00	1.62E-01	3.57E-04	3.98E-04
.450	.450	6.53E-03	1.04E+00	1.07E+00	3.38E-01	3.81E-04	5.65E-05
.500	.500	4.93E-03	9.70E-01	1.07E+00	7.15E-01	4.31E-04	9.49E-05
.550	.550	3.84E-03	9.00E-01	1.06E+00	1.54E+00	5.31E-04	9.17E-04
.600	.600	3.08E-03	8.18E-01	1.04E+00	3.01E+00	7.87E-04	3.04E-03
.625	.625	2.74E-03	7.72E-01	1.05E+00	3.58E+00	8.07E-04	3.50E-03
.650	.650	2.50E-03	7.10E-01	1.07E+00	3.66E+00	8.42E-04	3.43E-03
.675	.675	2.29E-03	6.47E-01	1.09E+00	3.29E+00	8.89E-04	2.99E-03
.700	.700	2.12E-03	5.94E-01	1.11E+00	2.73E+00	9.50E-04	2.50E-03
.725	.725	1.90E-03	5.53E-01	1.13E+00	2.20E+00	1.03E-03	2.11E-03
.750	.750	1.75E-03	5.20E-01	1.15E+00	1.75E+00	1.14E-03	1.86E-03
.800	.800	1.46E-03	4.68E-01	1.20E+00	1.17E+00	1.46E-03	1.61E-03
.850	.850	1.28E-03	4.22E-01	1.26E+00	8.18E-01	1.91E-03	1.53E-03
.900	.900	1.08E-03	3.79E-01	1.31E+00	5.95E-01	2.65E-03	1.54E-03
.950	.950	8.90E-04	3.37E-01	1.36E+00	4.46E-01	3.73E-03	1.54E-03
1.000	1.000	7.84E-04	2.93E-01	1.38E+00	3.52E-01	4.73E-03	1.22E-03
1.050	1.050	6.84E-04	2.55E-01	1.34E+00	2.86E-01	5.98E-03	1.04E-03
1.100	1.100	5.82E-04	2.20E-01	1.22E+00	2.35E-01	7.28E-03	9.72E-04
1.150	1.150	4.87E-04	1.93E-01	1.00E+00	1.96E-01	8.31E-03	9.65E-04
1.200	1.200	4.03E-04	1.67E-01	7.52E-01	1.66E-01	8.72E-03	1.00E-03
1.250	1.250	3.26E-04	1.45E-01	5.81E-01	1.42E-01	9.56E-03	1.08E-03
1.300	1.300	2.65E-04	1.26E-01	3.69E-01	1.23E-01	7.95E-03	1.18E-03
1.350	1.350	2.01E-04	8.05E-02	1.73E-01	8.42E-02	5.34E-03	1.11E-03
1.400	1.400	1.23E-04	4.20E-02	5.13E-02	2.32E-02	2.32E-03	1.12E-03
1.450	1.450	6.52E-05	1.68E-02	1.61E-02	1.97E-02	9.86E-04	9.94E-04
2.000	2.000	2.94E-05	5.53E-03	5.10E-03	8.15E-03	2.33E-04	7.84E-04

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
200	200	-173.5	89.1	.1	89.4	-58.7	20.0
250	250	-170.7	89.4	.1	91.5	-51.0	18.4
300	300	-168.2	90.9	-.0	98.5	-22.8	-16.0
350	350	-166.2	91.1	-.0	101.7	-5.9	-23.4
400	400	-164.4	90.9	.1	104.1	3.2	-26.1
450	450	-162.9	90.6	.2	107.4	5.9	-14.2
500	500	-161.6	90.5	.4	113.4	2.8	123.8
550	550	-160.5	90.9	.5	124.8	-4.5	142.1
600	600	-159.6	93.0	.4	145.9	-12.2	160.6
625	625	-159.7	95.2	.7	160.1	-8.3	173.5
650	650	-159.9	96.8	1.0	174.6	-4.3	-170.6
675	675	-160.0	97.4	1.4	-172.6	-.2	-154.7
700	700	-160.1	97.2	1.8	-162.5	3.9	-140.2
725	725	-160.2	96.6	2.4	-154.9	8.0	-127.9
750	750	-160.3	95.8	2.9	-149.4	12.0	-117.8
800	800	-160.5	94.0	4.4	-142.5	19.7	-103.8
850	850	-160.7	92.1	6.3	-139.1	26.7	-95.3
900	900	-160.9	90.0	8.7	-137.7	33.2	-92.9
950	950	-161.1	87.7	11.7	-137.6	39.6	-92.1
1000	1000	-162.3	86.8	17.2	-137.9	49.5	-86.1
1050	1050	-163.2	85.6	24.2	-138.9	61.3	-80.2
1100	1100	-164.1	84.0	32.5	-140.5	74.8	-74.8
1150	1150	-165.0	82.0	40.8	-142.7	89.1	-70.5
1200	1200	-166.4	79.5	48.0	-145.3	103.1	-67.7
1250	1250	-168.3	76.4	52.9	-148.5	115.8	-66.2
1300	1300	-170.7	72.8	55.5	-152.1	126.8	-66.2
1400	1400	-177.8	66.9	52.0	-158.4	139.3	-63.9
1500	1500	168.5	50.1	40.4	-174.2	154.8	-62.5
1600	1600	157.1	31.4	19.4	169.3	158.9	-67.1
1800	1800	140.7	2.1	-4.5	146.5	151.2	-73.6

REC = 36

HEADING = 105. DEG
SHIP SPEED = 5. KNOTS
RAO (MOTION/NAVEHT)**2

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	9.347E-02	8.715E-01	1.000E+00	5.602E-03	4.475E-04	1.797E-04
.254	.250	5.806E-02	9.905E-01	1.001E+00	1.531E-02	1.007E-03	4.666E-04
.305	.300	4.366E-02	1.066E+00	1.017E+00	3.866E-02	1.913E-03	1.331E-03
.358	.350	3.614E-02	1.065E+00	1.034E+00	8.846E-02	3.460E-03	2.825E-03
.411	.400	3.156E-02	9.892E-01	1.046E+00	1.956E-01	5.992E-03	4.976E-03
.464	.450	2.837E-02	8.868E-01	1.047E+00	4.420E-01	9.737E-03	8.176E-03
.517	.500	2.599E-02	7.843E-01	1.031E+00	1.091E+00	1.543E-02	1.350E-02
.571	.550	2.379E-02	6.867E-01	9.936E-01	3.201E+00	2.228E-02	2.474E-02
.624	.600	2.197E-02	5.444E-01	9.645E-01	9.830E+00	3.154E-02	4.793E-02
.652	.625	2.114E-02	4.183E-01	9.657E-01	1.189E+01	3.745E-02	5.009E-02
.679	.650	2.030E-02	3.374E-01	9.678E-01	9.579E+00	4.423E-02	3.833E-02
.706	.675	1.945E-02	3.131E-01	9.711E-01	6.518E+00	5.199E-02	2.756E-02
.733	.700	1.860E-02	3.034E-01	9.759E-01	4.474E+00	6.076E-02	2.189E-02
.761	.725	1.774E-02	2.922E-01	9.829E-01	3.224E+00	7.061E-02	1.944E-02
.783	.750	1.688E-02	2.769E-01	9.927E-01	2.486E+00	8.351E-02	1.866E-02
.843	.800	1.513E-02	2.370E-01	1.023E+00	1.663E+00	1.061E-01	1.944E-02
.893	.850	1.354E-02	1.912E-01	1.071E+00	1.252E+00	1.325E-01	2.115E-02
.955	.900	1.191E-02	1.456E-01	1.127E+00	1.005E+00	1.562E-01	2.271E-02
1.011	.950	9.407E-03	1.077E-01	1.193E+00	7.627E-01	1.719E-01	2.275E-02
1.068	1.000	7.430E-03	7.675E-02	1.163E+00	5.873E-01	1.029E-01	2.256E-02
1.125	1.050	5.747E-03	5.225E-02	9.370E-01	4.542E-01	1.299E-01	2.206E-02
1.182	1.100	4.414E-03	3.359E-02	6.115E-01	3.505E-01	9.244E-02	2.122E-02
1.240	1.150	3.322E-03	2.019E-02	3.375E-01	2.468E-01	6.366E-02	2.004E-02
1.293	1.200	2.491E-03	1.137E-02	1.644E-01	2.042E-01	4.350E-02	1.856E-02
1.355	1.250	1.717E-03	5.772E-03	7.227E-02	1.376E-01	2.684E-02	1.515E-02
1.415	1.300	1.155E-03	3.124E-03	3.382E-02	8.618E-02	1.548E-02	1.170E-02
1.533	1.400	4.908E-04	2.452E-03	1.009E-02	2.597E-02	4.324E-03	5.972E-03
1.774	1.600	3.495E-05	3.006E-03	8.450E-04	3.739E-03	2.366E-04	9.865E-04
2.020	1.800	3.177E-05	1.144E-03	5.409E-04	3.457E-03	7.969E-05	6.027E-04
2.272	2.000	1.266E-05	3.257E-04	2.903E-05	9.074E-04	7.039E-05	1.362E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
203	200	142.9	89.8	.1	94.1	-96.5	-176.4
254	250	131.7	90.2	.1	97.2	-92.7	-172.1
305	300	122.6	91.4	-.2	103.0	-90.1	-151.6
358	350	114.8	91.7	-.4	107.6	-88.7	-160.9
411	400	108.1	90.9	-.4	112.4	-87.6	-171.8
464	450	102.3	90.8	-.2	118.2	-86.3	179.0
517	500	97.2	91.2	-.1	126.5	-84.6	171.9
571	550	92.5	93.2	-.0	141.5	-82.4	168.7
624	600	88.5	100.0	.0	177.1	-80.1	-178.0
652	625	86.7	101.5	.1	-154.4	-78.8	-162.5
679	650	85.0	97.5	.1	-128.7	-77.4	-151.3
706	675	83.3	93.1	.1	-110.9	-75.9	-148.3
733	700	81.6	90.3	.2	-99.1	-74.1	-150.6
761	725	79.8	88.4	.2	-91.0	-72.1	-154.9
788	750	78.1	86.9	.3	-84.9	-69.9	-159.7
843	800	74.6	84.2	.7	-76.6	-64.7	-168.5
899	850	71.1	81.2	1.9	-71.2	-58.3	-176.2
955	900	67.6	77.9	4.5	-67.9	-50.5	176.9
1.011	950	64.7	76.5	11.3	-64.7	-39.4	173.3
1.063	1.000	61.1	74.0	22.3	-62.4	-26.8	169.9
1.125	1.050	56.3	70.2	35.6	-50.9	-15.2	166.5
1.182	1.100	50.7	64.3	48.2	-59.8	-6.8	162.7
1.241	1.150	44.6	55.5	57.9	-59.6	-1.4	158.5
1.298	1.200	38.1	41.6	64.0	-60.2	2.3	153.4
1.359	1.250	30.5	25.5	62.1	-62.3	5.8	148.8
1.415	1.300	21.8	1.6	55.3	-65.6	7.8	143.5
1.483	1.400	.2	-54.5	36.7	-78.9	5.6	129.5
1.533	1.450	-62.8	-114.3	-25.7	-177.6	-34.2	67.4
1.774	1.600	-154.4	-165.5	-91.9	120.8	-154.5	-12.9
2.020	1.800	156.5	116.5	-166.7	35.5	-156.8	-89.0
2.272	2.000						

REC = 37

HEADING = 105. DEG
SHIP SPEED = 10. KNOTS
RAO (MOTION/MAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	8.869E-02	8.438E-01	9.982E-01	5.685E-03	5.332E-04	9.989E-05
.258	.250	5.441E-02	8.798E-01	1.001E+00	1.572E-02	1.126E-03	2.823E-04
.312	.300	4.035E-02	1.027E+00	1.020E+00	4.003E-02	1.992E-03	9.089E-04
.367	.350	3.295E-02	1.012E+00	1.039E+00	9.368E-02	3.472E-03	2.153E-03
.422	.400	2.841E-02	9.294E-01	1.052E+00	2.134E-01	5.891E-03	4.162E-03
.478	.450	2.523E-02	8.274E-01	1.059E+00	5.022E-01	9.647E-03	7.384E-03
.534	.500	2.277E-02	7.265E-01	1.041E+00	1.306E+00	1.512E-02	1.319E-02
.591	.550	2.058E-02	6.169E-01	1.004E+00	3.844E+00	2.245E-02	2.573E-02
.649	.600	1.897E-02	4.457E-01	1.012E+00	6.975E+00	3.204E-02	3.483E-02
.678	.625	1.814E-02	3.704E-01	1.025E+00	5.944E+00	3.802E-02	2.907E-02
.707	.650	1.732E-02	3.342E-01	1.038E+00	4.341E+00	4.491E-02	2.278E-02
.737	.675	1.650E-02	3.148E-01	1.056E+00	3.128E+00	5.279E-02	1.897E-02
.767	.700	1.568E-02	2.981E-01	1.079E+00	2.339E+00	6.171E-02	1.718E-02
.796	.725	1.487E-02	2.802E-01	1.107E+00	1.829E+00	7.168E-02	1.660E-02
.826	.750	1.406E-02	2.604E-01	1.142E+00	1.492E+00	8.262E-02	1.671E-02
.887	.800	1.242E-02	2.168E-01	1.234E+00	1.093E+00	1.066E-01	1.793E-02
.943	.850	1.077E-02	1.722E-01	1.348E+00	8.750E-01	1.300E-01	1.952E-02
1.010	.900	8.877E-03	1.308E-01	1.495E+00	6.655E-01	1.481E-01	1.964E-02
1.073	.950	7.355E-03	9.728E-02	1.514E+00	5.165E-01	1.443E-01	1.973E-02
1.136	1.000	5.492E-03	6.998E-02	1.240E+00	4.064E-01	1.156E-01	1.972E-02
1.201	1.050	4.258E-03	4.821E-02	8.019E-01	3.221E-01	8.187E-02	1.955E-02
1.264	1.100	3.275E-03	3.146E-02	4.356E-01	2.564E-01	5.643E-02	1.921E-02
1.330	1.150	2.413E-03	1.883E-02	2.027E-01	1.962E-01	3.770E-02	1.778E-02
1.396	1.200	1.684E-03	1.015E-02	8.766E-02	1.370E-01	2.301E-02	1.491E-02
1.462	1.250	1.157E-03	5.121E-03	4.088E-02	9.032E-02	1.323E-02	1.197E-02
1.530	1.300	7.819E-04	2.624E-03	2.151E-02	5.539E-02	7.300E-03	9.165E-03
1.666	1.400	3.441E-04	1.618E-03	7.238E-03	1.531E-02	2.094E-03	4.522E-03
1.948	1.600	5.910E-05	2.228E-03	6.000E-04	1.993E-03	2.112E-04	5.442E-04
2.240	1.800	1.849E-05	5.554E-04	3.779E-04	2.228E-03	3.410E-05	3.496E-04
2.544	2.000	9.575E-06	1.760E-04	1.002E-05	5.648E-04	4.441E-05	7.423E-05

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	143.0	89.6	.1	94.6	-90.6	-169.8
.258	.250	131.8	90.3	.1	98.7	-87.3	-160.6
.312	.300	122.7	91.4	-.2	105.7	-84.5	-142.9
.367	.350	114.9	91.2	-.3	110.7	-83.6	-157.2
.422	.400	108.2	90.9	-.2	115.9	-83.1	-170.5
.478	.450	102.4	90.8	-.1	122.9	-82.2	179.5
.534	.500	97.2	91.6	.0	134.2	-80.6	173.0
.591	.550	92.5	94.6	.0	156.9	-78.3	174.3
.649	.600	88.9	99.7	.2	-157.3	-76.0	-164.0
.678	.625	87.1	97.9	.3	-134.1	-74.5	-154.3
.707	.650	85.4	94.9	.4	-117.0	-72.9	-150.7
.737	.675	83.7	92.4	.5	-105.0	-71.0	-151.6
.767	.700	82.0	90.6	.7	-96.4	-68.9	-154.7
.796	.725	80.3	89.0	1.0	-89.9	-66.5	-158.5
.826	.750	78.6	87.6	1.5	-84.8	-63.8	-162.4
.850	.800	75.2	84.6	3.1	-77.5	-57.3	-173.1
.897	.850	71.7	81.4	6.3	-72.8	-49.3	-177.3
1.010	.900	69.2	80.3	14.1	-68.7	-37.7	178.8
1.073	.950	65.9	78.5	26.9	-65.6	-24.2	175.4
1.136	1.000	61.5	75.5	42.5	-63.1	-11.6	172.2
1.200	1.050	56.3	71.0	57.3	-61.2	-2.6	168.8
1.264	1.100	50.6	64.3	68.8	-59.9	3.1	164.9
1.330	1.150	44.4	56.0	74.8	-59.6	7.5	160.8
1.396	1.200	37.4	46.9	73.5	-60.4	11.4	157.1
1.462	1.250	29.4	33.0	67.5	-62.0	13.4	152.9
1.530	1.300	20.2	11.7	59.2	-64.7	13.1	148.1
1.565	1.400	-2.1	-46.5	43.4	-76.2	4.7	135.1
1.593	1.500	-56.9	-114.5	-41.8	169.9	-25.8	69.5
2.243	1.900	-155.5	-167.6	-92.5	121.8	-172.5	-9.0
2.544	2.000	156.7	112.1	175.6	33.0	-167.3	-91.2

REC = 38

HEADING = 105. DEG
SHIP SPEED = 15. KNOTS
RAO (MOTION/MAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.208	.200	8.422E-02	8.119E-01	9.967E-01	5.745E-03	6.359E-04	4.085E-05
.263	.250	5.105E-02	8.802E-01	1.001E+00	1.601E-02	1.250E-03	1.374E-04
.318	.300	3.735E-02	9.802E-01	1.024E+00	4.120E-02	2.071E-03	6.010E-04
.375	.350	3.012E-02	9.554E-01	1.043E+00	9.846E-02	3.478E-03	1.605E-03
.433	.400	2.565E-02	8.706E-01	1.062E+00	2.294E-01	5.826E-03	3.491E-03
.491	.450	2.253E-02	7.689E-01	1.067E+00	5.495E-01	9.570E-03	6.780E-03
.551	.500	2.010E-02	6.637E-01	1.055E+00	1.388E+00	1.515E-02	1.282E-02
.612	.550	1.812E-02	5.352E-01	1.035E+00	3.033E+00	2.263E-02	2.147E-02
.673	.600	1.647E-02	4.034E-01	1.071E+00	3.117E+00	3.216E-02	2.073E-02
.705	.625	1.566E-02	3.612E-01	1.095E+00	2.519E+00	3.811E-02	1.816E-02
.736	.650	1.487E-02	3.324E-01	1.126E+00	1.968E+00	4.497E-02	1.626E-02
.768	.675	1.408E-02	3.091E-01	1.163E+00	1.555E+00	5.283E-02	1.525E-02
.807	.700	1.331E-02	2.872E-01	1.208E+00	1.264E+00	6.162E-02	1.495E-02
.832	.725	1.255E-02	2.653E-01	1.264E+00	1.059E+00	7.141E-02	1.512E-02
.865	.750	1.179E-02	2.430E-01	1.329E+00	9.128E-01	8.199E-02	1.558E-02
.897	.800	1.027E-02	1.975E-01	1.487E+00	7.262E-01	1.041E-01	1.692E-02
1.065	.900	8.600E-03	1.540E-01	1.698E+00	5.676E-01	1.245E-01	1.725E-02
1.134	.950	6.907E-03	1.178E-01	1.831E+00	4.430E-01	1.299E-01	1.731E-02
1.204	1.000	5.402E-03	8.799E-02	1.603E+00	3.530E-01	1.104E-01	1.748E-02
1.275	1.050	4.201E-03	6.366E-02	1.075E+00	2.854E-01	8.019E-02	1.769E-02
1.347	1.100	3.254E-03	4.413E-02	5.877E-01	2.336E-01	5.537E-02	1.789E-02
1.420	1.150	2.389E-03	2.808E-02	2.629E-01	1.819E-01	3.649E-02	1.672E-02
1.493	1.200	1.686E-03	1.648E-02	1.099E-01	1.322E-01	2.203E-02	1.447E-02
1.564	1.250	1.173E-03	8.991E-03	4.945E-02	9.149E-02	1.249E-02	1.205E-02
1.644	1.300	8.052E-04	4.580E-03	2.537E-02	5.950E-02	6.822E-03	9.598E-03
1.807	1.400	5.459E-04	2.267E-03	1.477E-02	3.580E-02	3.672E-03	7.294E-03
2.122	1.500	2.712E-04	8.491E-04	3.741E-03	9.046E-03	1.313E-03	3.193E-03
2.460	1.600	4.487E-05	1.445E-03	3.755E-04	1.859E-03	1.743E-04	3.470E-04
2.816	2.000	1.255E-05	3.108E-04	2.567E-04	1.574E-03	2.963E-05	2.201E-04
		7.158E-06	1.053E-04	7.299E-06	4.214E-04	3.251E-05	4.475E-05

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.208	.200	143.1	89.4	.2	95.5	-85.0	-158.3
.263	.250	132.0	90.3	.1	101.1	-81.9	-141.2
.318	.300	122.9	91.3	-.1	109.2	-78.8	-130.6
.375	.350	115.0	91.2	-.2	115.0	-78.5	-152.7
.433	.400	108.3	90.9	-.1	121.5	-78.7	-168.8
.491	.450	102.5	91.1	.0	131.0	-78.2	-179.0
.551	.500	97.3	92.2	.1	147.4	-76.8	176.8
.612	.550	92.7	95.7	.1	178.2	-74.5	-175.5
.673	.600	89.2	97.3	.4	141.9	-72.0	-158.6
.705	.625	87.5	95.8	.7	126.4	-70.4	-154.8
.736	.650	85.8	94.2	.9	114.5	-68.5	-154.2
.768	.675	84.1	92.6	1.3	105.5	-66.4	-155.6
.800	.700	82.4	91.1	1.8	98.5	-63.9	-158.2
.832	.725	80.7	89.7	2.5	92.8	-61.0	-151.2
.865	.750	79.0	88.2	3.5	88.2	-57.8	-164.5
.897	.800	75.7	85.1	6.8	81.5	-50.1	-171.2
.930	.850	73.1	83.6	14.2	76.4	-39.4	-175.9
.965	.900	70.4	82.3	27.2	72.3	-25.7	-179.3
1.000	.950	66.6	80.1	44.4	68.9	-11.8	177.6
1.034	1.004	61.7	76.6	61.5	66.2	-1.2	174.5
1.069	1.050	56.3	71.3	75.1	64.0	5.7	170.9
1.104	1.100	50.7	65.8	82.4	62.8	11.5	167.4
1.139	1.150	44.3	60.0	82.4	62.6	16.5	164.1
1.174	1.200	36.9	51.7	77.2	63.1	19.0	150.7
1.209	1.250	28.5	39.4	69.1	64.2	19.0	156.8
1.244	1.300	18.9	20.3	60.8	66.2	16.2	152.4
1.279	1.400	-4.5	-47.1	39.1	68.9	-3.5	139.6
1.314	1.600	-32.8	-112.3	-48.7	157.1	-21.0	68.4
1.349	1.800	-159.8	-168.7	-95.1	113.8	169.4	-10.3
1.384	2.000	156.2	106.0	138.7	25.0	-166.0	-96.6

REC = 39

HEADING = 105. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/VAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	8.003E-02	7.767E-01	9.951E-01	5.787E-03	7.560E-04	1.164E-05
.267	.250	4.794E-02	8.321E-01	1.004E+00	1.623E-02	1.376E-03	7.427E-05
.324	.300	3.483E-02	9.285E-01	1.030E+00	4.240E-02	2.139E-03	4.139E-04
.383	.350	2.759E-02	8.976E-01	1.055E+00	1.040E-01	3.459E-03	1.160E-03
.443	.400	2.322E-02	8.135E-01	1.075E+00	2.500E-01	5.728E-03	2.871E-03
.503	.450	2.017E-02	7.151E-01	1.082E+00	6.196E-01	9.470E-03	6.152E-03
.563	.500	1.782E-02	6.090E-01	1.073E+00	1.551E+00	1.592E-02	1.230E-02
.623	.550	1.597E-02	4.788E-01	1.083E+00	2.647E+00	2.250E-02	1.761E-02
.683	.600	1.435E-02	3.696E-01	1.142E+00	2.093E+00	3.180E-02	1.506E-02
.743	.625	1.359E-02	3.372E-01	1.181E+00	1.650E+00	3.761E-02	1.359E-02
.765	.650	1.283E-02	3.121E-01	1.230E+00	1.306E+00	4.430E-02	1.279E-02
.793	.675	1.209E-02	2.895E-01	1.289E+00	1.060E+00	5.192E-02	1.257E-02
.833	.700	1.136E-02	2.675E-01	1.360E+00	8.873E-01	6.046E-02	1.276E-02
.863	.725	1.065E-02	2.454E-01	1.445E+00	7.644E-01	6.984E-02	1.321E-02
.903	.750	9.940E-03	2.232E-01	1.542E+00	6.757E-01	7.982E-02	1.382E-02
.974	.800	8.481E-03	1.786E-01	1.781E+00	5.383E-01	1.002E-01	1.468E-02
1.045	.850	6.913E-03	1.391E-01	2.047E+00	4.142E-01	1.144E-01	1.470E-02
1.120	.900	5.450E-03	1.068E-01	1.995E+00	3.288E-01	1.085E-01	1.496E-02
1.195	.950	4.233E-03	8.019E-02	1.462E+00	2.672E-01	8.441E-02	1.540E-02
1.272	1.000	3.284E-03	5.831E-02	8.303E-01	2.216E-01	5.920E-02	1.597E-02
1.350	1.050	2.425E-03	3.929E-02	3.694E-01	1.757E-01	3.912E-02	1.538E-02
1.429	1.100	1.724E-03	2.469E-02	1.480E-01	1.325E-01	2.345E-02	1.372E-02
1.509	1.150	1.211E-03	1.465E-02	5.263E-02	9.543E-02	1.307E-02	1.181E-02
1.591	1.200	8.393E-04	8.099E-03	3.026E-02	6.524E-02	6.980E-03	9.783E-03
1.675	1.250	5.769E-04	4.020E-03	1.620E-02	4.188E-02	3.615E-03	7.687E-03
1.759	1.300	4.071E-04	1.581E-03	8.261E-03	2.476E-02	1.970E-03	5.550E-03
1.833	1.400	2.162E-04	4.441E-04	2.193E-03	5.601E-03	9.269E-04	2.293E-03
1.915	1.600	3.503E-05	9.053E-04	2.239E-04	1.977E-03	1.398E-04	2.411E-04
2.000	1.800	9.918E-06	2.074E-04	1.733E-04	1.277E-03	3.538E-05	1.519E-04
3.089	2.000	5.234E-06	7.585E-05	8.573E-06	3.786E-04	2.944E-05	2.696E-05

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	143.2	89.3	.1	96.0	-79.4	-129.4
.267	.250	132.1	90.3	.1	103.0	-76.2	-103.7
.324	.300	123.0	91.3	-.1	112.0	-73.0	-113.6
.383	.350	115.1	91.2	-.1	118.2	-73.4	-147.2
.443	.400	108.4	91.0	.0	125.3	-74.3	-167.2
.505	.450	102.5	91.2	.2	136.5	-74.4	-178.0
.568	.500	97.3	92.9	.2	157.0	-73.1	180.0
.632	.550	93.1	95.9	.4	-166.9	-71.1	-167.5
.698	.600	89.6	96.7	1.0	-131.1	-68.3	-154.4
.731	.625	87.9	95.3	1.3	-118.5	-66.6	-152.9
.765	.650	86.2	93.9	1.9	-108.9	-64.5	-153.7
.793	.675	84.5	92.5	2.6	-101.3	-62.0	-155.8
.833	.700	82.8	91.1	3.5	-95.3	-59.2	-158.6
.868	.725	81.1	89.6	4.8	-90.5	-56.0	-161.7
.903	.750	79.5	88.2	6.5	-86.5	-52.3	-165.0
.974	.800	76.6	85.9	12.4	-80.4	-43.1	-170.9
1.046	.850	74.4	85.1	24.3	-75.5	-30.2	-174.5
1.120	.900	71.3	83.6	41.8	-71.5	-15.6	-177.6
1.195	.950	67.0	80.9	61.1	-68.0	-2.8	179.4
1.272	1.000	62.0	76.8	77.5	-65.1	6.4	176.1
1.350	1.050	56.9	72.7	87.5	-63.3	14.1	172.9
1.423	1.100	51.1	68.6	80.9	-62.4	20.6	159.9
1.501	1.150	44.3	63.2	86.1	-62.0	24.4	156.9
1.591	1.200	36.6	55.6	78.1	-62.2	25.3	163.7
1.675	1.250	27.3	45.0	68.6	-63.2	21.7	160.1
1.759	1.300	15.9	29.2	57.3	-66.3	10.7	155.5
1.933	1.400	-6.6	-49.2	33.3	-66.3	-10.4	143.3
2.295	1.600	-49.7	-109.2	-53.5	152.0	-17.9	65.8
2.681	1.800	-166.4	-168.2	-99.8	104.9	159.8	-16.3
3.088	2.000	158.0	98.7	113.2	14.4	-162.8	-106.6

REC = 40 HEADING = 105. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.214	.200	7.611E-02	7.399E-01	9.972E-01	5.809E-03	8.912E-04	8.538E-06
.271	.250	4.507E-02	7.976E-01	1.009E+00	1.634E-02	1.495E-03	1.010E-04
.331	.300	3.215E-02	8.738E-01	1.039E+00	4.345E-02	2.178E-03	3.403E-04
.392	.350	2.530E-02	8.395E-01	1.068E+00	1.093E-01	3.391E-03	8.393E-04
.454	.400	2.107E-02	7.579E-01	1.090E+00	2.693E-01	5.574E-03	2.379E-03
.519	.450	1.812E-02	6.625E-01	1.100E+00	6.722E-01	9.323E-03	5.625E-03
.583	.500	1.585E-02	5.505E-01	1.094E+00	1.535E+00	1.520E-02	1.126E-02
.653	.550	1.412E-02	4.294E-01	1.136E+00	1.900E+00	2.203E-02	1.309E-02
.722	.600	1.257E-02	3.447E-01	1.220E+00	1.330E+00	3.097E-02	1.120E-02
.753	.625	1.183E-02	3.171E-01	1.276E+00	1.067E+00	3.657E-02	1.066E-02
.794	.650	1.112E-02	2.932E-01	1.345E+00	8.713E-01	4.301E-02	1.055E-02
.830	.675	1.043E-02	2.707E-01	1.427E+00	7.316E-01	5.033E-02	1.077E-02
.865	.700	9.752E-03	2.486E-01	1.525E+00	6.319E-01	5.852E-02	1.121E-02
.904	.725	9.089E-03	2.267E-01	1.638E+00	5.601E-01	6.745E-02	1.181E-02
.941	.750	8.437E-03	2.048E-01	1.764E+00	5.075E-01	7.683E-02	1.248E-02
1.017	.800	7.018E-03	1.616E-01	2.101E+00	3.890E-01	9.523E-02	1.252E-02
1.095	.850	5.617E-03	1.261E-01	2.302E+00	3.054E-01	1.032E-01	1.272E-02
1.175	.900	4.370E-03	9.715E-02	1.953E+00	2.474E-01	9.115E-02	1.317E-02
1.256	.950	3.374E-03	7.320E-02	1.213E+00	2.060E-01	6.761E-02	1.387E-02
1.340	1.000	2.523E-03	5.197E-02	5.651E-01	1.691E-01	4.565E-02	1.394E-02
1.425	1.050	1.802E-03	3.439E-02	2.190E-01	1.303E-01	2.755E-02	1.279E-02
1.511	1.100	1.275E-03	2.175E-02	8.629E-02	9.706E-02	1.519E-02	1.135E-02
1.599	1.150	9.906E-04	1.302E-02	3.811E-02	6.930E-02	7.935E-03	9.736E-03
1.689	1.200	6.128E-04	7.044E-03	1.845E-02	4.707E-02	3.875E-03	7.926E-03
1.781	1.250	4.286E-04	3.152E-03	9.190E-03	2.889E-02	1.933E-03	5.998E-03
1.874	1.300	3.116E-04	1.114E-03	4.997E-03	1.719E-02	1.183E-03	4.255E-03
2.066	1.400	1.710E-04	2.798E-04	1.526E-03	3.254E-03	6.892E-04	1.647E-03
2.470	1.600	2.756E-05	6.601E-04	1.502E-04	1.695E-03	1.036E-04	1.589E-04
2.907	1.800	9.397E-06	1.146E-04	1.275E-04	8.740E-04	4.730E-05	1.100E-04
3.350	2.000	3.315E-06	9.848E-05	5.280E-05	2.120E-04	2.313E-05	1.208E-05

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.214	.200	143.3	89.1	.1	96.6	-73.5	-66.5
.271	.250	132.3	90.3	.0	105.2	-70.1	-61.8
.331	.300	123.1	91.2	-.0	115.0	-67.0	-93.4
.392	.350	115.3	91.1	.0	121.9	-68.2	-140.5
.454	.400	108.5	91.0	.2	130.2	-70.1	-165.2
.519	.450	102.6	91.6	.4	143.9	-70.8	-176.0
.585	.500	97.4	93.6	.4	159.0	-69.7	-175.2
.653	.550	93.5	97.1	.8	-153.9	-67.9	-160.8
.722	.600	89.9	96.2	1.7	-124.1	-65.0	-152.5
.758	.625	88.2	95.0	2.4	-113.9	-63.1	-152.3
.794	.650	86.5	93.8	3.2	-105.8	-60.9	-153.8
.830	.675	84.8	92.5	4.3	-99.3	-58.2	-156.1
.866	.700	83.2	91.1	5.8	-94.0	-55.1	-159.0
.904	.725	81.5	89.7	7.7	-89.7	-51.6	-162.2
.941	.750	79.9	88.1	10.2	-86.2	-47.5	-165.5
1.017	.800	77.8	87.4	19.8	-80.4	-36.5	-169.8
1.095	.850	75.4	86.5	35.8	-75.7	-22.5	-173.0
1.175	.900	72.0	84.6	56.3	-71.6	-7.8	-175.9
1.256	.950	67.4	81.4	75.9	-63.1	4.4	-178.9
1.340	1.000	62.7	77.9	89.8	-55.4	14.3	-177.9
1.425	1.050	57.5	74.9	95.5	-64.0	23.2	-175.0
1.511	1.100	51.4	71.0	94.2	-63.0	23.9	-172.3
1.593	1.150	44.4	66.0	87.3	-62.4	31.4	-169.5
1.689	1.200	35.6	59.6	76.9	-62.9	28.3	-166.3
1.781	1.250	24.5	51.6	64.4	-64.8	17.4	-162.4
1.874	1.300	13.1	38.0	52.1	-67.6	3.6	-158.1
2.066	1.400	-9.1	-50.9	28.9	-67.3	-17.4	-145.4
2.473	1.500	-48.4	-110.7	-60.7	146.6	-16.4	-61.6
2.900	1.800	-173.7	-175.6	-100.4	102.0	156.0	-16.5
3.360	2.000	155.2	67.5	78.3	15.1	-163.8	-98.6

REC = 41 HEADING = 120. DEG SHIP SPEED = 5. KNOTS
P20 (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	1.90E-01	6.80E-01	9.97E-01	4.63E-03	1.47E-03	5.80E-04
.250	.250	1.50E-01	7.05E-01	9.94E-01	1.30E-02	3.43E-03	1.50E-03
.300	.300	1.30E-01	8.17E-01	1.00E+00	3.47E-02	6.84E-03	4.02E-03
.350	.350	1.16E-01	7.88E-01	1.00E+00	8.54E-02	1.26E-02	8.14E-03
.400	.400	1.05E-01	7.00E-01	9.87E-01	2.67E-01	2.15E-02	1.37E-02
.450	.450	9.53E-02	5.95E-01	9.51E-01	5.20E-01	3.45E-02	2.11E-02
.500	.500	8.49E-02	4.91E-01	8.67E-01	1.48E+00	5.16E-02	3.22E-02
.550	.550	7.43E-02	3.81E-01	7.93E-01	4.99E+00	7.19E-02	5.32E-02
.600	.600	6.37E-02	2.65E-01	7.22E-01	1.17E+01	9.77E-02	6.68E-02
.625	.625	5.83E-02	1.40E-01	6.89E-01	1.06E+01	1.12E-01	4.93E-02
.650	.650	5.29E-02	1.18E-01	6.54E-01	6.99E+00	1.28E-01	3.51E-02
.675	.675	4.76E-02	1.07E-01	6.20E-01	4.84E+00	1.44E-01	2.86E-02
.700	.700	4.23E-02	9.34E-02	5.83E-01	3.51E+00	1.61E-01	2.62E-02
.725	.725	3.71E-02	7.75E-02	5.58E-01	2.68E+00	1.76E-01	2.54E-02
.750	.750	3.22E-02	6.09E-02	5.31E-01	2.12E+00	1.91E-01	2.52E-02
.800	.800	2.30E-02	3.11E-02	4.85E-01	1.82E+00	2.10E-01	2.42E-02
.850	.850	1.52E-02	1.07E-02	4.37E-01	9.75E-01	2.09E-01	2.18E-02
.900	.900	8.77E-03	2.12E-03	3.76E-01	5.74E-01	1.87E-01	1.73E-02
.950	.950	4.33E-03	2.76E-03	2.52E-01	3.13E-01	1.34E-01	1.24E-02
1.000	1.000	1.78E-03	1.49E-03	1.04E-01	1.55E-01	7.16E-02	8.02E-03
1.050	1.050	5.83E-04	4.03E-03	2.96E-02	7.07E-02	2.79E-02	4.49E-03
1.100	1.100	1.51E-04	5.86E-03	2.12E-02	2.41E-02	7.10E-03	2.22E-03
1.150	1.150	8.47E-05	5.86E-03	2.55E-02	2.53E-02	5.36E-04	1.14E-03
1.200	1.200	1.20E-04	4.12E-03	1.89E-02	2.76E-02	6.32E-04	9.42E-04
1.250	1.250	1.23E-04	2.30E-03	9.16E-03	2.86E-02	1.91E-03	1.12E-03
1.300	1.300	8.21E-05	1.11E-03	2.71E-03	2.35E-02	2.17E-03	1.17E-03
1.350	1.350	7.01E-06	5.65E-04	7.74E-03	6.97E-03	7.04E-04	5.61E-04
1.400	1.400	4.36E-06	5.36E-05	7.88E-03	1.41E-03	4.09E-05	1.35E-04
1.450	1.450	5.60E-07	1.09E-05	1.12E-05	3.84E-04	5.58E-06	4.27E-05
1.500	1.500	6.09E-07	4.83E-06	5.15E-06	8.58E-05	3.53E-06	1.32E-05
2.000	2.000						

PHASE (MOTION-WAVEHT)

W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	120.9	89.7	.1	97.2	-92.7	-176.7
.250	110.8	90.2	.1	102.3	-90.1	-173.1
.312	103.7	91.1	-.2	110.5	-88.3	-165.8
.350	98.1	90.9	-.3	117.2	-87.0	-172.1
.400	93.5	90.6	-.3	123.7	-85.6	-179.2
.477	89.3	90.7	-.3	131.1	-83.7	174.6
.533	85.5	92.1	-.4	141.7	-81.3	170.1
.590	81.9	97.1	-.8	162.2	-78.5	170.9
.647	78.8	105.0	-1.4	-148.2	-75.3	-158.1
.676	77.3	99.4	-1.9	-121.1	-73.5	-159.7
.705	75.8	92.3	-2.5	-102.3	-71.5	-160.3
.735	74.2	88.2	-3.2	-90.4	-69.2	-165.7
.764	72.7	85.7	-4.1	-82.8	-66.7	-172.1
.794	71.0	84.0	-5.1	-77.8	-63.9	-178.0
.824	69.4	82.4	-6.1	-74.6	-60.8	176.6
.854	68.0	79.7	-7.6	-71.8	-53.6	166.7
.884	62.2	77.9	-7.4	-72.8	-45.0	157.0
.915	58.4	81.0	-2.4	-73.9	-32.6	151.2
1.005	52.8	-177.9	7.0	-77.3	-13.0	144.9
1.069	43.8	-115.3	13.9	-84.6	-3.9	136.7
1.131	28.3	-119.3	-.4	-98.6	7.1	124.4
1.195	-3.7	-119.3	-35.4	-123.8	13.7	103.8
1.259	-61.2	-126.5	-44.3	-158.2	2.4	69.3
1.323	-96.8	-136.5	-37.3	173.0	-110.7	28.0
1.389	-115.2	-151.3	-29.2	155.0	-114.3	-1.3
1.455	-129.7	-175.3	-20.3	141.7	-100.6	-20.8
1.522	165.5	113.1	136.4	111.4	-89.7	-57.5
1.657	8.8	-23.9	157.7	-26.5	119.1	168.6
1.935	-157.4	-143.9	55.5	158.7	16.9	-7.7
2.225	28.8	20.8	-155.3	-32.8	-43.4	159.4
2.535						

REC = 42

HEADING = 120. DEG
SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	1.716E-01	6.417E-01	9.961E-01	4.788E-03	1.616E-03	3.716E-04
.266	.250	1.224E-01	6.883E-01	9.969E-01	1.390E-02	3.606E-03	1.038E-03
.324	.300	1.121E-01	7.644E-01	1.009E+00	3.819E-02	6.937E-03	3.006E-03
.382	.350	9.828E-02	7.179E-01	1.013E+00	9.787E-02	1.260E-02	6.482E-03
.442	.400	8.702E-02	6.254E-01	1.004E+00	2.501E-01	2.161E-02	1.144E-02
.503	.450	7.686E-02	5.229E-01	9.714E-01	6.848E-01	3.445E-02	1.857E-02
.566	.500	6.716E-02	4.189E-01	9.114E-01	2.140E+00	5.247E-02	3.054E-02
.623	.550	5.777E-02	2.812E-01	8.532E-01	5.619E+00	7.468E-02	4.445E-02
.693	.600	4.858E-02	1.644E-01	8.222E-01	4.632E+00	1.039E-01	3.082E-02
.723	.625	4.404E-02	1.430E-01	8.095E-01	3.377E+00	1.207E-01	2.521E-02
.761	.650	3.958E-02	1.258E-01	8.007E-01	2.512E+00	1.387E-01	2.276E-02
.793	.675	3.522E-02	1.041E-01	7.969E-01	1.951E+00	1.575E-01	2.198E-02
.823	.700	3.099E-02	8.968E-02	7.992E-01	1.575E+00	1.761E-01	2.193E-02
.863	.725	2.691E-02	7.143E-02	8.071E-01	1.310E+00	1.937E-01	2.200E-02
.893	.750	2.303E-02	5.443E-02	8.181E-01	1.110E+00	2.086E-01	2.197E-02
.963	.800	1.587E-02	2.705E-02	8.343E-01	7.885E-01	2.248E-01	2.065E-02
1.040	.850	9.676E-03	1.108E-02	7.979E-01	4.961E-01	2.113E-01	1.758E-02
1.113	.900	5.268E-03	2.787E-03	5.383E-01	3.013E-01	1.510E-01	1.410E-02
1.187	.950	2.563E-03	6.88E-05	2.388E-01	1.717E-01	8.122E-02	1.055E-02
1.262	1.000	1.076E-03	8.288E-04	4.246E-02	8.962E-02	3.541E-02	7.119E-03
1.339	1.050	3.555E-04	2.697E-03	9.061E-03	3.876E-02	1.123E-02	3.921E-03
1.413	1.100	1.680E-04	3.632E-03	1.224E-02	1.514E-02	1.796E-03	1.606E-03
1.497	1.150	6.957E-05	3.439E-03	1.181E-02	1.059E-02	1.261E-04	6.689E-04
1.573	1.200	7.709E-05	2.496E-03	7.465E-03	1.240E-02	6.524E-04	5.047E-04
1.660	1.250	6.700E-05	1.410E-03	3.288E-03	1.312E-02	1.066E-03	6.195E-04
1.744	1.300	3.955E-05	6.177E-04	8.651E-04	1.059E-02	7.939E-04	6.331E-04
1.815	1.400	1.022E-05	2.480E-04	2.115E-04	2.390E-03	1.690E-04	2.537E-04
2.272	1.600	7.043E-07	2.126E-05	4.713E-05	5.813E-04	1.741E-05	5.638E-05
2.650	1.800	5.673E-07	9.220E-06	3.264E-06	1.162E-04	1.818E-07	1.805E-05
3.051	2.000	2.359E-07	7.201E-06	4.125E-06	6.155E-05	8.474E-06	1.113E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	121.0	89.5	.1	98.2	-89.1	-170.9
.265	.250	110.9	90.5	.1	105.2	-86.6	-163.7
.324	.300	103.8	91.1	-.2	114.1	-84.8	-151.2
.382	.350	98.2	90.8	-.3	121.1	-83.7	-170.2
.442	.400	93.4	90.6	-.3	128.6	-82.3	-178.4
.503	.450	89.3	91.1	-.3	138.7	-80.3	175.3
.565	.500	85.5	93.7	-.5	155.7	-77.5	173.2
.629	.550	82.2	100.5	-.9	-162.9	-74.2	-173.7
.693	.600	79.2	96.2	-1.5	-114.6	-70.2	-160.4
.723	.625	77.8	92.4	-1.9	-99.8	-67.8	-162.6
.761	.650	76.3	89.7	-2.3	-89.8	-65.0	-167.2
.795	.675	74.8	87.6	-2.6	-83.1	-61.9	-172.4
.829	.700	73.3	85.9	-2.7	-78.5	-58.4	-177.4
.863	.725	71.7	84.2	-2.5	-75.4	-54.4	177.8
.898	.750	70.2	82.6	-1.6	-73.5	-49.9	173.0
.959	.800	67.1	80.4	3.2	-71.9	-39.3	164.8
1.043	.850	64.0	73.9	15.8	-70.5	-23.3	160.2
1.113	.900	59.1	77.8	34.8	-70.9	-5.9	155.3
1.187	.950	51.8	58.7	52.8	-73.5	9.0	149.2
1.262	1.000	41.5	-97.4	58.4	-79.4	20.2	140.7
1.339	1.050	24.2	-105.9	19.8	-92.9	28.9	129.2
1.418	1.100	-10.8	-113.0	-8.2	-121.9	30.1	111.6
1.497	1.150	-59.4	-120.0	-8.6	-162.5	-37.9	79.3
1.578	1.200	-91.3	-128.7	-3.2	168.7	-90.7	35.7
1.653	1.250	-110.3	-141.3	3.5	182.1	-91.7	5.1
1.744	1.300	-129.5	-164.6	-11.2	139.2	-91.1	-15.5
1.915	1.400	171.0	122.6	-92.4	104.4	-111.8	-53.3
2.272	1.600	-8.2	-45.4	146.0	-34.9	163.5	164.6
2.650	1.800	-118.9	-175.4	27.9	145.3	21.2	-19.2
3.051	2.000	-34.0	10.9	158.3	-41.4	-65.0	153.2

REC = 43 HEADING = 120. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	1.553E-01	5.991E-01	9.956E-01	4.924E-03	1.772E-03	2.005E-04
.275	.250	1.171E-01	6.597E-01	1.501E+00	1.471E-02	3.743E-03	6.267E-04
.335	.300	9.704E-02	7.068E-01	1.018E+00	4.175E-02	6.961E-03	2.160E-03
.398	.350	8.332E-02	6.494E-01	1.028E+00	1.110E-01	1.252E-02	5.132E-03
.463	.400	7.234E-02	5.556E-01	1.024E+00	2.953E-01	2.155E-02	9.689E-03
.530	.450	6.272E-02	4.534E-01	9.974E-01	8.229E-01	3.506E-02	1.663E-02
.598	.500	5.384E-02	3.340E-01	9.447E-01	2.132E+00	5.303E-02	2.587E-02
.669	.550	4.561E-02	2.236E-01	9.453E-01	2.479E+00	7.716E-02	2.494E-02
.742	.600	3.768E-02	1.623E-01	9.653E-01	1.653E+00	1.085E-01	2.006E-02
.779	.655	3.386E-02	1.405E-01	9.876E-01	1.336E+00	1.266E-01	1.923E-02
.816	.650	3.015E-02	1.199E-01	1.021E+00	1.109E+00	1.460E-01	1.910E-02
.854	.675	2.657E-02	9.977E-02	1.066E+00	9.455E-01	1.658E-01	1.928E-02
.893	.700	2.312E-02	8.052E-02	1.120E+00	8.229E-01	1.848E-01	1.951E-02
.932	.725	1.983E-02	6.261E-02	1.177E+00	7.263E-01	2.010E-01	1.959E-02
.971	.750	1.661E-02	4.726E-02	1.245E+00	6.173E-01	2.145E-01	1.903E-02
1.052	.800	1.072E-02	2.481E-02	1.316E+00	4.143E-01	2.160E-01	1.697E-02
1.134	.850	6.285E-03	1.057E-02	9.631E-01	2.733E-01	1.621E-01	1.466E-02
1.219	.900	3.413E-03	2.897E-03	4.084E-01	1.753E-01	9.216E-02	1.213E-02
1.305	.950	1.674E-03	1.854E-04	1.038E-01	1.063E-01	4.422E-02	9.413E-03
1.394	1.000	6.619E-04	4.302E-04	1.429E-02	4.848E-02	1.556E-02	5.569E-03
1.484	1.050	2.229E-04	1.474E-03	7.615E-03	1.807E-02	3.710E-03	2.772E-03
1.576	1.100	7.907E-05	2.155E-03	8.649E-03	6.359E-03	4.291E-04	1.117E-03
1.671	1.150	5.433E-05	2.114E-03	6.604E-03	4.759E-03	1.943E-04	4.020E-04
1.767	1.200	4.850E-05	1.479E-03	3.215E-03	6.539E-03	4.203E-04	2.670E-04
1.865	1.250	3.514E-05	7.902E-04	1.369E-03	6.912E-03	4.014E-04	3.357E-04
1.965	1.300	2.165E-05	3.404E-04	6.804E-04	5.165E-03	2.450E-04	3.437E-04
2.072	1.400	9.199E-06	9.920E-05	2.431E-04	1.063E-03	7.633E-05	1.150E-04
2.608	1.600	7.663E-07	1.477E-05	2.102E-05	3.046E-04	2.801E-06	2.995E-05
3.075	1.800	9.552E-08	6.011E-06	9.556E-06	1.128E-04	3.998E-06	1.527E-05
3.575	2.000	4.944E-08	4.482E-06	4.278E-06	3.745E-05	5.113E-06	6.131E-06

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.216	.200	121.1	89.4	.2	99.9	-85.5	-163.0
.275	.250	111.0	90.6	.0	109.2	-82.9	-151.4
.335	.300	103.9	91.1	-.2	119.1	-81.2	-155.8
.393	.350	98.2	90.9	-.2	127.2	-80.4	-168.1
.453	.400	93.4	90.8	-.2	137.0	-79.2	-177.2
.510	.450	89.3	91.9	-.3	152.8	-77.0	-177.9
.568	.500	85.5	95.2	-.6	-177.9	-73.7	-178.8
.625	.550	82.6	97.5	-.8	-134.4	-80.0	-165.0
.683	.600	79.7	93.6	-1.0	-104.4	-64.9	-164.5
.742	.625	78.2	91.6	-1.0	-93.2	-61.7	-167.7
.800	.650	76.8	89.8	-.6	-83.6	-53.2	-171.6
.858	.675	75.3	88.1	.2	-83.8	-54.1	-175.8
.916	.700	73.9	86.4	1.7	-83.5	-49.4	-179.9
.974	.725	72.4	84.7	4.2	-78.5	-44.2	-175.5
1.032	.750	71.2	83.9	8.4	-76.6	-37.7	-172.2
1.090	.800	68.7	83.3	24.1	-73.3	-20.7	-168.0
1.148	.850	64.5	81.1	47.8	-71.6	-1.8	-163.8
1.206	.900	58.4	74.7	71.2	-71.4	13.9	-158.8
1.264	.950	50.6	36.5	86.7	-73.3	25.7	-152.3
1.322	1.000	38.6	-86.2	70.7	-80.5	36.4	-145.5
1.380	1.050	13.8	-100.9	25.3	-95.1	41.6	-136.0
1.438	1.100	-16.3	-107.9	11.5	-126.2	27.3	-120.1
1.496	1.150	-58.3	-114.6	9.9	-171.2	-54.0	-88.6
1.554	1.200	-86.1	-124.3	.3	159.8	-72.7	39.2
1.612	1.250	-103.7	-137.9	-15.9	143.9	-77.6	5.5
1.670	1.300	-133.8	-159.7	-41.2	131.4	-85.2	-14.2
1.728	1.350	171.5	115.7	-83.2	92.1	-128.1	-53.1
1.786	1.400	-2.9	-55.3	133.4	-59.2	163.3	149.8
1.844	1.450	-144.2	128.1	-19.8	137.6	106.1	-27.0
1.902	1.500	8.4	-53.7	121.6	-18.2	-66.7	169.9

REC = 44 HEADING = 120. DEG SHIP SPEED = 20. KNOTS MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	1.410E-01	5.545E-01	9.961E-01	5.040E-03	1.936E-03	9.151E-05
.283	.250	1.043E-01	6.223E-01	1.009E+00	1.551E-02	3.832E-03	3.577E-04
.347	.300	8.441E-02	6.472E-01	1.030E+00	4.577E-02	6.897E-03	1.512E-03
.414	.350	7.109E-02	5.846E-01	1.046E+00	1.270E-01	1.231E-02	4.032E-03
.484	.400	5.033E-02	4.932E-01	1.048E+00	3.541E-01	2.136E-02	8.255E-03
.556	.450	5.109E-02	3.923E-01	1.030E+00	9.902E-01	3.509E-02	1.490E-02
.631	.500	4.375E-02	2.769E-01	1.019E+00	1.810E+00	5.353E-02	1.957E-02
.703	.550	3.647E-02	1.946E-01	1.066E+00	1.449E+00	7.837E-02	1.662E-02
.783	.600	2.955E-02	1.474E-01	1.153E+00	9.579E-01	1.103E-01	1.525E-02
.833	.625	2.642E-02	1.269E-01	1.230E+00	8.074E-01	1.294E-01	1.542E-02
.872	.650	2.332E-02	1.070E-01	1.319E+00	6.997E-01	1.493E-01	1.582E-02
.914	.675	2.034E-02	8.787E-02	1.423E+00	6.195E-01	1.682E-01	1.625E-02
.957	.700	1.745E-02	7.003E-02	1.537E+00	5.487E-01	1.857E-01	1.642E-02
1.001	.725	1.455E-02	5.471E-02	1.694E+00	4.540E-01	2.011E-01	1.580E-02
1.045	.750	1.187E-02	4.185E-02	1.803E+00	3.775E-01	2.069E-01	1.519E-02
1.135	.800	7.395E-03	2.234E-02	1.540E+00	2.623E-01	1.745E-01	1.332E-02
1.223	.850	4.312E-03	9.703E-03	7.567E-01	1.309E-01	1.085E-01	1.248E-02
1.325	.900	2.311E-03	2.750E-03	2.165E-01	1.181E-01	5.564E-02	1.041E-02
1.424	.950	1.055E-03	2.787E-04	3.507E-02	6.193E-02	2.202E-02	6.973E-03
1.523	1.000	4.204E-04	1.789E-04	7.229E-03	2.716E-02	6.599E-03	4.086E-03
1.623	1.050	1.454E-04	8.324E-04	6.445E-03	9.303E-03	1.304E-03	2.009E-03
1.735	1.100	6.395E-05	1.285E-03	5.051E-03	3.162E-03	1.951E-04	7.280E-04
1.844	1.150	4.291E-05	1.245E-03	3.053E-03	3.027E-03	2.155E-04	2.141E-04
1.956	1.200	3.094E-05	8.793E-04	1.620E-03	4.128E-03	2.566E-04	1.412E-04
2.070	1.250	1.995E-05	4.494E-04	8.364E-04	4.309E-03	1.898E-04	1.987E-04
2.187	1.300	1.241E-05	1.462E-04	4.646E-04	3.255E-03	9.259E-05	2.066E-04
2.343	1.400	7.484E-06	4.724E-05	1.655E-04	6.365E-04	4.373E-05	5.785E-05
2.544	1.500	1.342E-06	1.229E-05	2.643E-05	2.174E-04	7.590E-07	1.957E-05
3.000	1.800	3.461E-07	2.435E-05	4.284E-06	3.484E-05	4.889E-06	4.962E-06
4.102	2.000	4.234E-08	1.106E-05	1.646E-06	2.422E-05	3.838E-06	4.268E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	121.2	89.2	.1	101.3	-81.7	-150.0
.283	.250	111.2	90.7	-0	112.9	-78.9	-133.1
.347	.300	103.9	91.1	-1	123.3	-77.6	-149.4
.414	.350	98.2	90.9	-1	132.1	-77.2	-166.0
.484	.400	93.5	91.1	-1	144.0	-76.1	-176.0
.556	.450	89.3	92.8	-2	155.4	-73.7	-178.9
.631	.500	85.8	97.0	-3	-155.9	-70.2	-169.2
.709	.550	82.9	96.1	-2	-117.8	-65.7	-161.2
.789	.600	80.1	92.7	.5	-95.8	-59.5	-165.3
.830	.625	78.7	91.0	1.4	-89.1	-55.7	-169.0
.872	.650	77.3	89.3	3.0	-84.2	-51.3	-173.1
.914	.675	75.9	87.6	5.5	-80.8	-46.2	-177.4
.957	.700	74.6	86.1	9.3	-78.5	-40.3	-178.5
1.001	.725	73.7	86.1	15.8	-75.8	-32.5	-176.4
1.045	.750	72.7	85.9	25.0	-73.7	-23.6	-174.5
1.136	.800	69.4	84.3	50.4	-70.5	-3.7	-170.7
1.229	.850	64.3	80.1	77.6	-68.6	13.9	-166.4
1.325	.900	57.8	71.1	97.4	-68.6	27.7	-161.3
1.424	.950	49.0	51.4	97.9	-72.1	40.2	-156.4
1.525	1.000	36.1	-74.1	63.5	-79.0	48.2	-150.5
1.629	1.050	14.7	-104.7	30.7	-93.3	47.6	-142.1
1.735	1.100	-19.3	-104.7	15.7	-131.5	7.8	-126.3
1.844	1.150	-53.3	-113.0	3.7	-173.9	-44.2	-92.4
1.956	1.200	-80.6	-122.4	-11.3	154.1	-58.4	38.3
2.070	1.250	-106.6	-134.9	-28.8	138.8	-65.7	3.2
2.187	1.300	-135.6	-156.3	-48.3	125.8	-77.7	-16.3
2.429	1.400	169.6	97.5	-80.2	82.1	-138.8	-57.6
2.944	1.600	4.7	-67.6	124.4	-66.9	1.3	139.9
3.500	1.800	-170.2	146.8	-51.4	128.0	115.1	-28.7
4.102	2.000	-29.4	14.9	110.2	-58.6	-70.5	129.8

REC = 45 HEADING = 120. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	1.283E-01	5.102E-01	9.983E-01	5.135E-03	2.097E-03	3.932E-05
.291	.250	9.270E-02	5.787E-01	1.017E+00	1.629E-02	3.855E-03	2.413E-04
.359	.300	7.379E-02	5.882E-01	1.046E+00	5.005E-02	6.720E-03	1.059E-03
.430	.350	6.105E-02	5.244E-01	1.069E+00	1.445E-01	1.196E-02	3.197E-03
.505	.400	5.122E-02	4.364E-01	1.077E+00	4.140E-01	2.099E-02	7.145E-03
.583	.450	4.301E-02	3.327E-01	1.067E+00	1.044E+00	3.492E-02	1.286E-02
.664	.500	3.594E-02	2.343E-01	1.110E+00	1.242E+00	5.347E-02	1.362E-02
.748	.550	2.952E-02	1.747E-01	1.214E+00	8.625E-01	7.812E-02	1.212E-02
.835	.600	2.365E-02	1.329E-01	1.397E+00	6.088E-01	1.106E-01	1.243E-02
.881	.625	2.090E-02	1.133E-01	1.585E+00	5.340E-01	1.291E-01	1.295E-02
.927	.650	1.828E-02	9.450E-02	1.675E+00	4.793E-01	1.480E-01	1.350E-02
.974	.675	1.568E-02	7.668E-02	1.866E+00	4.159E-01	1.667E-01	1.353E-02
1.022	.700	1.313E-02	6.116E-02	2.094E+00	3.473E-01	1.826E-01	1.314E-02
1.070	.725	1.076E-02	4.800E-02	2.242E+00	2.921E-01	1.894E-01	1.281E-02
1.119	.750	8.637E-03	3.689E-02	2.179E+00	2.471E-01	1.822E-01	1.249E-02
1.220	.800	5.295E-03	1.986E-02	1.336E+00	1.786E-01	1.311E-01	1.185E-02
1.324	.850	3.042E-03	8.557E-03	4.563E-01	1.258E-01	7.332E-02	1.074E-02
1.431	.900	1.539E-03	2.560E-03	8.855E-02	7.384E-02	3.210E-02	7.928E-03
1.542	.950	7.021E-04	3.477E-04	1.385E-02	3.778E-02	1.117E-02	5.274E-03
1.656	1.000	2.789E-04	7.548E-05	5.137E-03	1.582E-02	2.962E-03	3.066E-03
1.774	1.050	1.112E-04	4.639E-04	3.720E-03	5.372E-03	5.137E-04	1.368E-03
1.894	1.100	5.516E-05	7.681E-04	2.755E-03	1.850E-03	1.713E-04	4.538E-04
2.013	1.150	3.442E-05	7.692E-04	1.718E-03	2.102E-03	1.979E-04	1.151E-04
2.145	1.200	2.202E-05	5.431E-04	9.210E-04	3.027E-03	1.805E-04	8.612E-05
2.275	1.250	1.243E-05	2.964E-04	4.895E-04	3.089E-03	1.044E-04	1.359E-04
2.409	1.300	7.594E-06	6.319E-05	3.015E-04	2.218E-03	3.830E-05	1.359E-04
2.685	1.400	6.412E-06	3.108E-05	8.667E-05	4.708E-04	2.970E-05	3.642E-05
3.280	1.600	1.243E-06	4.590E-06	1.685E-05	1.937E-04	2.083E-06	2.097E-05
3.925	1.800	1.249E-07	4.014E-06	4.605E-06	5.835E-05	5.589E-06	9.802E-06
4.626	2.000	1.080E-08	3.504E-06	1.380E-06	2.106E-05	2.665E-06	2.942E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	121.3	89.1	.1	102.7	-77.6	-126.2
.291	.250	111.3	90.8	-.0	115.9	-74.6	-107.2
.359	.300	104.0	91.1	-.1	127.8	-73.8	-141.9
.430	.350	98.3	91.0	.0	137.6	-74.0	-163.8
.505	.400	93.5	91.5	.1	152.7	-73.1	-174.2
.583	.450	89.2	93.9	-.0	173.3	-70.6	-174.1
.664	.500	86.1	97.2	.2	197.7	-66.9	-162.1
.748	.550	83.3	95.3	1.0	207.5	-61.7	-160.1
.836	.600	80.5	92.2	3.1	240.7	-54.5	-166.0
.881	.625	79.1	90.6	5.2	255.6	-49.9	-170.0
.927	.650	77.8	88.9	8.4	281.9	-44.7	-174.3
.974	.675	76.3	88.1	13.4	279.0	-38.2	-177.6
1.022	.700	76.0	88.1	21.2	276.1	-30.1	-179.6
1.070	.725	75.0	87.9	32.0	273.7	-20.7	178.6
1.119	.750	73.7	87.3	45.5	271.7	-10.5	176.8
1.221	.800	69.7	84.6	75.6	268.4	9.5	173.0
1.324	.850	64.2	79.3	100.4	260.8	26.0	168.6
1.431	.900	57.2	74.3	110.7	268.2	40.9	164.6
1.542	.950	47.9	59.6	97.5	271.5	51.3	160.3
1.656	1.000	34.0	-57.1	56.7	277.9	56.1	155.0
1.774	1.050	9.9	-93.4	26.4	298.0	40.1	145.9
1.894	1.100	-20.6	-103.9	10.2	312.0	-8.3	130.4
2.018	1.150	-49.9	-112.3	-3.2	317.7	-38.8	94.7
2.145	1.200	-76.4	-121.1	-14.9	317.5	-48.9	30.8
2.275	1.250	-103.5	-132.0	-32.4	333.1	-55.1	-1.8
2.403	1.300	-138.1	-154.3	-52.0	319.8	-72.9	-20.0
2.686	1.400	163.1	81.2	-78.3	271.3	-148.8	-65.8
3.280	1.600	-12.5	-28.4	129.8	-79.1	-32.1	128.6
3.925	1.800	156.0	147.4	-54.3	125.1	106.9	-35.1
4.626	2.000	-46.3	-38.6	113.1	-35.3	-73.9	158.2

REC = 46

HEADING = 135. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.207	.200	3.203E-01	4.419E-01	9.926E-01	3.179E-03	2.819E-03	7.765E-04
.250	.250	2.720E-01	4.612E-01	9.833E-01	9.280E-03	6.650E-03	2.038E-03
.317	.300	2.404E-01	5.166E-01	9.778E-01	2.625E-02	1.339E-02	5.293E-03
.373	.350	2.141E-01	4.789E-01	9.562E-01	6.918E-02	2.450E-02	1.021E-02
.431	.400	1.881E-01	4.045E-01	9.089E-01	1.801E-01	4.119E-02	1.639E-02
.489	.450	1.628E-01	3.218E-01	8.288E-01	4.915E-01	6.378E-02	2.393E-02
.546	.500	1.355E-01	2.437E-01	7.148E-01	1.533E+00	9.057E-02	3.457E-02
.605	.550	1.087E-01	1.636E-01	5.800E-01	5.871E+00	1.176E-01	5.405E-02
.667	.600	8.219E-02	4.767E-02	4.689E-01	9.368E+00	1.481E-01	4.302E-02
.697	.625	6.962E-02	3.063E-02	4.145E-01	6.180E+00	1.617E-01	2.669E-02
.728	.650	5.776E-02	2.442E-02	3.632E-01	3.876E+00	1.730E-01	1.967E-02
.750	.675	4.677E-02	1.806E-02	3.164E-01	2.558E+00	1.809E-01	1.695E-02
.791	.700	3.683E-02	1.155E-02	2.751E-01	1.776E+00	1.843E-01	1.551E-02
.823	.725	2.805E-02	6.056E-03	2.393E-01	1.273E+00	1.821E-01	1.422E-02
.854	.750	2.057E-02	2.335E-03	2.093E-01	9.267E-01	1.736E-01	1.271E-02
.919	.800	9.490E-03	5.458E-04	1.529E-01	4.860E-01	1.377E-01	8.897E-03
.984	.850	3.126E-03	3.030E-03	9.953E-02	2.154E-01	8.545E-02	4.875E-03
1.050	.900	5.262E-04	5.092E-03	5.534E-02	8.192E-02	3.409E-02	2.008E-03
1.117	.950	2.975E-05	5.400E-03	5.103E-02	4.086E-02	4.811E-03	6.814E-04
1.185	1.000	1.672E-04	4.045E-03	6.771E-02	3.746E-02	6.389E-04	5.773E-04
1.253	1.050	2.457E-04	2.179E-03	5.256E-02	3.930E-02	4.999E-03	9.989E-04
1.324	1.100	1.561E-04	9.135E-04	2.077E-02	3.202E-02	6.938E-03	1.207E-03
1.395	1.150	3.435E-05	5.564E-04	2.671E-03	1.736E-02	4.741E-03	8.665E-04
1.467	1.200	3.944E-06	6.095E-04	9.768E-05	6.207E-03	1.662E-03	4.315E-04
1.500	1.250	3.597E-05	5.047E-04	1.190E-03	2.293E-03	2.299E-04	2.169E-04
1.613	1.300	5.373E-05	2.659E-04	1.176E-03	2.107E-03	2.315E-04	1.914E-04
1.764	1.400	3.815E-06	1.138E-04	2.064E-05	7.368E-04	2.025E-04	8.121E-05
2.075	1.500	4.168E-06	3.430E-05	1.504E-05	8.833E-05	3.536E-05	1.343E-05
2.401	1.600	1.710E-06	3.492E-05	2.808E-06	2.014E-05	1.041E-05	2.109E-06
2.743	2.000	1.637E-06	4.678E-06	1.556E-05	3.293E-05	1.82E-05	3.419E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.207	.200	111.4	89.6	.1	99.6	-91.1	-177.3
.262	.250	103.0	90.3	.1	106.4	-89.9	-174.2
.317	.300	97.3	90.9	-2	115.8	-87.2	-171.1
.373	.350	92.6	90.5	-3	123.1	-85.7	-177.1
.430	.400	88.7	90.3	-4	129.7	-83.8	-176.5
.488	.450	85.1	91.0	-5	135.8	-81.3	-170.8
.546	.500	81.6	93.8	-1.0	147.3	-78.3	-166.7
.606	.550	78.3	103.8	-2.1	172.9	-74.6	-171.1
.667	.600	75.4	110.2	-4.1	-126.9	-70.5	-164.6
.697	.625	73.9	97.7	-5.6	-104.2	-68.1	-164.7
.728	.650	72.4	90.4	-7.6	-91.2	-65.4	-172.1
.763	.675	70.8	87.5	-10.1	-84.1	-62.3	-179.6
.791	.700	69.2	87.0	-12.9	-80.3	-59.0	-172.1
.823	.725	67.5	88.6	-16.2	-78.8	-55.3	-165.3
.854	.750	65.8	95.4	-19.5	-79.2	-51.3	-158.9
.899	.800	61.9	-168.2	-25.9	-84.8	-42.0	-145.4
.934	.850	58.7	-135.0	-32.5	-95.5	-33.2	-132.3
1.050	.900	45.3	-132.0	-46.2	-115.2	-15.8	-115.8
1.117	.950	-36.5	-133.7	-70.4	-149.0	-6.7	80.2
1.185	1.000	-107.7	-140.5	-74.3	177.8	-125.9	23.4
1.255	1.050	-122.0	-155.7	-66.2	156.5	-137.2	-11.4
1.324	1.100	-132.2	172.1	-55.5	140.8	-128.1	-32.7
1.395	1.150	-147.3	122.3	-45.2	123.7	-114.1	-52.8
1.467	1.200	95.7	84.0	179.4	97.6	-96.9	-80.2
1.500	1.250	49.8	57.3	168.2	48.6	-56.0	-123.8
1.613	1.300	37.9	27.1	178.1	-6	37.0	-169.5
1.764	1.400	-21.8	-76.2	-127.6	-64.1	84.7	-121.1
2.075	1.600	85.4	79.5	-147.4	83.5	-27.5	-78.6
2.401	1.800	-138.8	-131.9	-23.0	-158.2	138.8	29.8
2.743	2.000	-6.5	-34.1	156.8	-23.9	-28.3	149.1

REC = 47 HEADING = 135. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	2.792E-01	4.070E-01	9.923E-01	3.344E-03	3.010E-03	5.129E-04
.273	.250	2.282E-01	4.443E-01	9.888E-01	1.027E-02	6.847E-03	1.470E-03
.333	.300	1.955E-01	4.708E-01	9.890E-01	3.043E-02	1.351E-02	4.035E-03
.395	.350	1.590E-01	4.208E-01	9.733E-01	8.483E-02	2.468E-02	8.057E-03
.459	.400	1.448E-01	3.458E-01	9.320E-01	2.400E-01	4.183E-02	1.331E-02
.525	.450	1.215E-01	2.692E-01	8.581E-01	7.537E-01	6.537E-02	2.057E-02
.593	.500	9.884E-02	1.895E-01	7.520E-01	2.772E+00	9.307E-02	3.271E-02
.662	.550	7.714E-02	8.548E-02	6.717E-01	4.838E+00	1.276E-01	3.111E-02
.734	.600	5.699E-02	4.826E-02	6.002E-01	2.430E+00	1.651E-01	1.735E-02
.777	.625	4.758E-02	3.822E-02	5.703E-01	1.708E+00	1.828E-01	1.544E-02
.807	.650	3.894E-02	2.825E-02	5.457E-01	1.259E+00	1.900E-01	1.459E-02
.844	.675	3.104E-02	1.903E-02	5.255E-01	9.613E-01	2.189E-01	1.393E-02
.882	.700	2.409E-02	1.134E-02	5.065E-01	7.486E-01	2.137E-01	1.311E-02
.920	.725	1.802E-02	5.654E-03	4.819E-01	5.863E-01	2.103E-01	1.199E-02
.959	.750	1.288E-02	2.187E-03	4.473E-01	4.477E-01	1.985E-01	1.051E-02
1.038	.800	5.347E-03	2.068E-04	3.322E-01	2.134E-01	1.502E-01	5.998E-03
1.118	.850	1.572E-03	1.220E-03	1.217E-01	9.034E-02	7.400E-02	3.934E-03
1.201	.900	2.492E-04	2.850E-03	1.763E-02	3.441E-02	2.066E-02	1.763E-03
1.285	.950	2.468E-05	3.633E-03	2.571E-02	1.655E-02	2.034E-03	6.646E-04
1.371	1.000	1.233E-04	2.683E-03	2.934E-02	1.536E-02	4.954E-04	4.006E-04
1.459	1.050	1.242E-04	1.302E-03	1.579E-02	1.618E-02	2.749E-03	5.659E-04
1.549	1.100	6.366E-05	4.443E-04	4.514E-03	1.233E-02	3.018E-03	6.151E-04
1.641	1.150	8.507E-06	2.054E-04	4.617E-04	6.176E-03	1.802E-03	4.258E-04
1.735	1.200	3.710E-06	2.336E-04	5.984E-05	1.779E-03	4.537E-04	1.776E-04
1.830	1.250	1.444E-05	1.922E-04	2.926E-04	6.013E-04	2.462E-05	7.251E-05
1.927	1.300	7.804E-06	7.478E-05	1.883E-04	7.928E-04	4.755E-05	6.969E-05
2.028	1.400	4.079E-06	4.315E-05	5.912E-05	1.853E-04	2.565E-05	2.373E-05
2.550	1.600	1.073E-06	2.108E-05	3.344E-06	6.396E-05	1.077E-05	5.731E-06
3.002	1.800	4.092E-07	1.260E-05	1.279E-06	4.154E-05	1.116E-05	3.196E-06
3.486	2.000	5.352E-07	4.490E-06	3.186E-06	2.264E-05	5.344E-06	1.747E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	111.4	89.4	.2	101.0	-88.4	-171.9
.273	.250	103.1	90.5	.0	110.1	-86.1	-165.9
.333	.300	97.3	90.9	-.2	119.9	-84.3	-167.6
.395	.350	92.6	90.5	-.3	127.4	-82.8	-175.7
.459	.400	88.6	90.5	-.4	135.3	-80.7	-177.1
.525	.450	85.0	91.9	-.7	146.7	-77.7	-171.7
.593	.500	81.5	97.7	-1.4	171.3	-73.9	-173.2
.562	.550	78.7	103.7	-2.7	-132.5	-69.5	-166.2
.734	.600	75.9	92.1	-4.6	-94.4	-63.7	-168.9
.770	.625	74.5	89.1	-5.8	-85.5	-60.2	-175.5
.807	.650	73.0	87.2	-6.8	-80.3	-56.3	-177.9
.844	.675	71.6	86.1	-7.5	-77.5	-51.8	-171.8
.882	.700	70.1	85.9	-7.4	-76.4	-46.8	-165.9
.920	.725	68.6	87.4	-6.3	-76.8	-41.2	-159.9
.959	.750	67.0	93.6	-3.9	-78.2	-34.7	-154.4
1.038	.800	63.7	163.8	8.1	-80.9	-16.8	-147.6
1.118	.850	57.0	-129.2	23.1	-88.9	3.6	-138.5
1.201	.900	40.7	-122.5	1.2	-107.0	21.6	-123.2
1.285	.950	-45.3	-124.7	-4.4	-141.2	36.8	-90.9
1.371	1.000	-103.5	-132.6	-35.4	180.0	-126.4	35.5
1.459	1.050	-117.3	-146.1	-21.3	156.6	-112.1	-3.2
1.549	1.100	-127.7	-173.2	-7.0	141.2	-93.9	-24.3
1.641	1.150	-146.7	135.7	17.9	126.1	-85.4	-42.3
1.735	1.200	91.0	90.3	-165.6	98.6	-78.6	-69.7
1.830	1.250	59.7	64.2	-156.2	35.2	-100.3	-119.9
1.927	1.300	35.9	35.5	-161.1	-15.8	147.8	-170.8
2.128	1.400	-74.4	-89.9	114.4	-81.7	136.2	-115.9
2.550	1.600	81.7	71.2	-124.7	49.0	-45.5	-103.9
3.002	1.800	177.1	-137.3	-111.3	-173.1	96.5	-22.2
3.486	2.000	-32.8	-27.9	153.3	-42.5	-50.3	128.8

REC = 48

HEADING = 135. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)*2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.222	.200	2.434E-01	3.706E-01	9.928E-01	3.438E-03	3.205E-03	2.976E-04
.285	.250	1.930E-01	4.180E-01	9.962E-01	1.133E-02	6.964E-03	9.619E-04
.350	.300	1.607E-01	4.232E-01	1.003E+00	3.515E-02	1.350E-02	2.998E-03
.418	.350	1.353E-01	3.871E-01	9.945E-01	1.031E-01	2.469E-02	6.390E-03
.483	.400	1.130E-01	2.941E-01	9.615E-01	3.104E-01	4.224E-02	1.113E-02
.563	.450	9.267E-02	2.175E-01	8.980E-01	9.359E-01	6.648E-02	1.796E-02
.639	.500	7.378E-02	1.313E-01	8.785E-01	1.990E+00	9.712E-02	2.138E-02
.718	.550	5.633E-02	7.679E-02	8.150E-01	1.441E+00	1.364E-01	1.560E-02
.800	.600	4.661E-02	4.854E-02	8.225E-01	8.634E-01	1.796E-01	1.338E-02
.842	.625	3.754E-02	3.657E-02	8.413E-01	6.953E-01	1.998E-01	1.302E-02
.885	.650	2.708E-02	2.574E-02	8.657E-01	5.714E-01	2.163E-01	1.265E-02
.923	.675	2.128E-02	1.662E-02	8.843E-01	4.743E-01	2.262E-01	1.208E-02
.973	.700	1.604E-02	9.905E-03	9.013E-01	3.742E-01	2.295E-01	1.103E-02
1.018	.725	1.149E-02	5.415E-03	8.972E-01	2.787E-01	2.220E-01	9.703E-03
1.063	.750	7.825E-03	2.483E-03	8.055E-01	2.049E-01	1.970E-01	8.354E-03
1.155	.800	3.674E-03	1.234E-04	3.643E-01	1.041E-01	1.103E-01	5.757E-03
1.252	.850	9.054E-04	6.454E-04	5.273E-02	4.689E-02	4.341E-02	3.456E-03
1.351	.900	1.443E-04	1.864E-03	5.035E-03	1.683E-02	8.482E-03	1.514E-03
1.452	.950	2.766E-05	2.114E-03	1.531E-02	6.782E-03	2.301E-04	4.324E-04
1.557	1.000	6.750E-05	1.543E-03	1.313E-02	6.692E-03	6.589E-04	2.078E-04
1.664	1.050	5.944E-05	7.533E-04	6.131E-03	7.201E-03	1.577E-03	3.003E-04
1.774	1.100	3.209E-05	2.033E-04	1.442E-03	5.384E-03	1.135E-03	3.162E-04
1.885	1.150	7.973E-06	3.139E-05	2.509E-04	2.337E-03	4.606E-04	1.937E-04
2.002	1.200	3.450E-06	1.647E-04	1.892E-04	5.159E-04	1.097E-04	5.862E-05
2.120	1.250	3.031E-06	8.256E-05	1.316E-04	2.801E-04	4.927E-05	2.677E-05
2.241	1.300	1.363E-06	3.420E-05	5.303E-05	4.151E-04	5.393E-05	3.312E-05
2.491	1.400	2.462E-06	2.636E-05	3.228E-05	1.021E-04	6.906E-06	1.269E-05
3.025	1.600	8.229E-08	1.963E-05	3.061E-06	5.462E-05	8.277E-06	5.246E-06
3.603	1.800	7.553E-09	4.719E-06	4.045E-07	5.233E-05	6.127E-06	3.632E-06
4.220	2.000	2.438E-07	2.977E-06	2.004E-06	1.378E-05	2.435E-06	1.992E-06

PHASE (MOTION-WAVEHT)

KE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.22	.200	111.5	89.3	.2	103.2	-85.5	-155.3
.25	.250	103.2	90.7	-.0	115.2	-83.0	-156.4
.30	.300	97.3	90.9	-.2	125.6	-81.4	-164.0
.40	.350	90.6	90.6	-.3	134.4	-79.9	-174.2
.45	.400	88.6	90.9	-.5	146.1	-77.6	178.4
.50	.450	84.9	93.6	-.9	167.5	-74.1	176.3
.55	.500	81.9	99.2	-1.6	-143.9	-69.6	-171.8
.60	.550	79.1	95.5	-2.6	-108.0	-63.9	-167.0
.65	.600	76.4	90.7	-3.1	-98.5	-56.2	-175.5
.70	.625	75.1	88.9	-2.7	-83.6	-51.5	179.2
.75	.650	72.8	87.5	-1.2	-80.7	-46.0	173.8
.80	.675	72.4	86.6	1.5	-79.5	-39.9	168.3
.85	.700	71.3	87.1	6.5	-78.6	-32.3	164.1
.90	.725	70.2	89.0	14.8	-77.7	-22.7	161.5
.95	.750	68.7	92.1	26.2	-77.5	-11.9	158.8
1.00	.800	63.6	127.6	54.3	-79.5	10.6	152.4
1.05	.850	54.8	-117.3	74.3	-86.2	29.3	143.2
1.10	.900	38.3	-114.6	6.9	-104.8	45.8	128.8
1.15	.950	-47.9	-119.0	-14.3	-146.1	58.6	100.8
1.20	1.000	-97.1	-125.8	-5.6	173.3	-102.5	44.2
1.25	1.050	-112.3	-137.1	4.1	151.3	-91.8	3.0
1.30	1.100	-128.6	-164.6	-3.6	136.1	-84.7	-19.4
1.35	1.150	-161.7	134.2	-41.2	119.5	-84.8	-38.6
1.40	1.200	135.8	90.1	-94.2	86.0	-105.5	-67.5
1.45	1.250	80.0	58.5	-121.4	10.8	-154.0	-128.6
1.50	1.300	40.8	21.1	-150.6	-31.9	177.7	177.2
1.55	1.400	-70.5	-99.8	112.8	-112.8	128.6	96.2
1.60	1.500	124.8	60.7	-13.2	37.2	-102.6	-120.5
1.65	1.600	45.3	-122.2	-144.6	174.2	69.2	5.9
1.70	1.700	-22.9	-60.5	133.0	-36.5	-51.6	162.2

REC = 49 HEADING = 135. DEG SHIP SPEED = 20. KNOTS MOTION/HAVENT**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	2.131E-01	3.342E-01	9.940E-01	3.642E-03	3.398E-03	1.546E-04
.295	.250	1.643E-01	3.855E-01	1.005E+00	1.250E-02	6.981E-03	5.995E-04
.367	.300	1.333E-01	3.766E-01	1.021E+00	4.076E-02	1.332E-02	2.197E-03
.441	.350	1.096E-01	3.193E-01	1.021E+00	1.265E-01	2.448E-02	5.105E-03
.519	.400	8.956E-02	2.500E-01	9.983E-01	4.049E-01	4.232E-02	9.520E-03
.600	.450	7.192E-02	1.705E-01	9.495E-01	1.136E+00	6.691E-02	1.488E-02
.685	.500	5.619E-02	1.034E-01	9.645E-01	1.181E+00	1.002E-01	1.310E-02
.775	.550	4.206E-02	6.889E-02	1.025E+00	7.331E-01	1.424E-01	1.092E-02
.867	.600	2.967E-02	4.298E-02	1.156E+00	4.915E-01	1.883E-01	1.074E-02
.915	.625	2.420E-02	3.160E-02	1.240E+00	4.172E-01	2.083E-01	1.069E-02
.964	.650	1.916E-02	2.190E-02	1.329E+00	3.475E-01	2.236E-01	1.031E-02
1.013	.675	1.451E-02	1.457E-02	1.437E+00	2.679E-01	2.322E-01	9.452E-03
1.064	.700	1.056E-02	9.051E-03	1.435E+00	2.060E-01	2.236E-01	8.582E-03
1.115	.725	7.363E-03	5.367E-03	1.234E+00	1.573E-01	1.926E-01	7.691E-03
1.168	.750	4.933E-03	2.389E-03	8.595E-01	1.198E-01	1.479E-01	6.785E-03
1.275	.800	1.946E-03	8.575E-05	2.094E-01	6.438E-02	6.582E-02	4.976E-03
1.387	.850	5.426E-04	3.426E-04	1.283E-02	2.615E-02	1.918E-02	2.684E-03
1.501	.900	8.801E-05	1.044E-03	5.683E-03	7.910E-03	2.719E-03	1.037E-03
1.620	.950	2.537E-05	1.682E-03	9.639E-03	3.372E-03	5.282E-06	2.750E-04
1.742	1.000	4.469E-05	8.773E-04	6.055E-03	3.701E-03	4.728E-04	1.068E-04
1.863	1.050	3.831E-05	3.824E-04	2.371E-03	4.089E-03	6.506E-04	1.605E-04
1.993	1.100	1.840E-05	8.095E-05	7.644E-04	2.749E-03	4.023E-04	1.856E-04
2.132	1.150	6.326E-06	2.774E-05	2.752E-04	1.132E-03	1.526E-04	9.744E-05
2.269	1.200	3.281E-06	5.403E-05	1.560E-04	2.789E-04	5.195E-05	2.997E-05
2.410	1.250	1.941E-06	5.160E-05	6.782E-05	2.095E-04	4.094E-05	1.401E-05
2.555	1.300	8.891E-07	2.371E-05	1.675E-05	2.841E-04	2.624E-05	2.191E-05
2.855	1.400	1.827E-06	2.444E-05	1.918E-05	9.029E-05	4.904E-06	1.004E-05
3.501	1.600	6.356E-07	5.032E-06	2.320E-06	7.025E-05	5.312E-06	5.312E-06
4.205	1.800	2.036E-08	4.274E-06	5.396E-07	2.766E-05	3.355E-06	2.434E-06
4.972	2.000	1.100E-07	8.269E-07	7.597E-07	1.430E-05	1.020E-06	1.158E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	111.6	89.1	.1	105.2	-82.5	-155.9
.296	.250	103.3	90.8	-.0	119.9	-79.7	-144.4
.367	.300	97.3	90.9	-.2	130.5	-78.4	-160.2
.441	.350	92.6	90.7	-.3	140.5	-77.0	-172.9
.519	.400	88.5	91.7	-.5	156.5	-74.4	-179.9
.600	.450	84.9	95.4	-.9	-170.8	-70.4	-177.0
.685	.500	82.2	97.6	-1.2	-123.0	-65.2	-164.4
.775	.550	79.6	93.3	-1.1	-95.1	-58.0	-168.3
.867	.600	77.0	89.6	1.3	-82.6	-48.2	-178.0
.915	.625	75.8	88.0	4.3	-79.7	-42.2	176.7
.964	.650	74.7	87.1	9.3	-78.0	-34.9	172.0
1.013	.675	73.9	87.8	18.0	-75.8	-25.3	169.6
1.064	.700	72.8	88.3	30.3	-74.4	-14.2	167.3
1.115	.725	71.2	88.7	45.9	-73.5	-2.2	164.9
1.168	.750	69.0	88.9	62.9	-73.2	9.6	162.2
1.275	.800	62.6	93.2	93.3	-74.6	29.6	155.6
1.387	.850	51.9	103.4	95.8	-83.2	47.6	147.5
1.501	.900	26.5	-109.9	10.6	-104.4	62.1	135.7
1.620	.950	-50.1	-113.7	4.6	-149.3	14.1	110.5
1.742	1.000	-92.1	-120.5	3.4	168.1	-84.3	48.7
1.869	1.050	-111.5	-132.7	-4.3	147.2	-79.3	3.1
1.993	1.100	-133.8	-161.6	-24.7	132.6	-78.6	-18.5
2.132	1.150	-170.2	120.7	-55.0	111.9	-86.4	-39.9
2.269	1.200	141.4	68.2	-85.2	70.0	-117.4	-73.8
2.410	1.250	101.7	40.7	-109.7	-2.0	-155.1	-145.4
2.555	1.300	46.1	3.1	-154.7	-41.5	-176.3	163.6
2.855	1.400	-48.5	-111.7	113.5	-126.8	76.9	80.3
3.501	1.600	144.9	84.3	-6.9	28.7	-131.4	-127.7
4.205	1.800	178.8	-170.2	-120.7	-172.8	72.1	30.4
4.972	2.000	-22.0	-25.1	128.3	-58.8	-55.4	125.5

REC = 50

HEADING = 135. DEG SHIP SPEED = 25. KNOTS
RAO . (MOTION/WAVEHT) **2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.237	.200	1.875E-01	2.995E-01	9.971E-01	3.773E-03	3.573E-03	7.529E-05
.303	.250	1.407E-01	3.504E-01	1.019E+00	1.375E-02	6.874E-03	3.854E-04
.384	.300	1.115E-01	3.330E-01	1.042E+00	4.732E-02	1.295E-02	1.615E-03
.464	.350	8.971E-02	2.774E-01	1.051E+00	1.550E-01	2.401E-02	4.158E-03
.543	.400	7.193E-02	2.114E-01	1.042E+00	5.177E-01	4.203E-02	8.313E-03
.633	.450	5.678E-02	1.361E-01	1.044E+00	1.002E+00	6.711E-02	1.083E-02
.732	.500	4.357E-02	8.829E-02	1.128E+00	7.097E-01	1.013E-01	8.777E-03
.831	.550	3.202E-02	6.073E-02	1.304E+00	4.544E-01	1.442E-01	8.480E-03
.934	.600	2.211E-02	3.692E-02	1.582E+00	3.310E-01	1.901E-01	8.851E-03
.1.037	.625	1.769E-02	2.695E-02	1.784E+00	2.573E-01	2.107E-01	8.504E-03
1.042	.650	1.351E-02	1.900E-02	1.974E+00	2.093E-01	2.213E-01	7.984E-03
1.099	.675	1.002E-02	1.276E-02	1.971E+00	1.552E-01	2.142E-01	7.464E-03
1.155	.700	7.135E-03	8.004E-03	1.643E+00	1.300E-01	1.852E-01	6.932E-03
1.213	.725	4.935E-03	4.511E-03	1.095E+00	1.120E-01	1.421E-01	6.382E-03
1.272	.750	3.311E-03	2.117E-03	5.890E-01	7.954E-02	9.963E-02	5.815E-03
1.344	.800	1.235E-03	1.167E-04	7.569E-02	3.955E-02	3.668E-02	3.799E-03
1.521	.850	3.374E-04	1.528E-04	3.492E-03	1.446E-02	8.582E-03	1.929E-03
1.652	.900	5.685E-05	6.101E-04	5.244E-03	3.973E-03	9.082E-04	7.355E-04
1.787	.950	2.323E-05	7.148E-04	5.077E-03	1.873E-03	3.537E-05	1.606E-04
1.923	1.000	2.946E-05	4.724E-04	2.890E-03	2.894E-03	2.932E-04	5.514E-05
2.073	1.050	2.255E-05	1.882E-04	1.213E-03	2.573E-03	3.214E-04	9.527E-05
2.223	1.100	1.344E-05	2.969E-05	4.426E-04	1.111E-03	1.772E-04	1.032E-04
2.377	1.150	4.557E-06	1.197E-05	2.030E-04	6.875E-04	6.219E-05	5.633E-05
2.535	1.200	3.244E-06	4.083E-05	8.831E-05	2.019E-04	2.952E-05	1.607E-05
2.701	1.250	1.956E-06	3.919E-05	2.542E-05	1.998E-04	2.310E-05	1.110E-05
2.869	1.300	8.916E-07	1.786E-05	9.033E-06	2.290E-04	1.011E-05	1.802E-05
3.039	1.400	1.605E-06	1.445E-05	1.304E-05	8.131E-05	5.695E-06	9.091E-06
3.219	1.500	4.281E-07	9.777E-06	4.276E-06	4.233E-05	3.954E-06	3.771E-06
3.405	1.600	4.323E-09	2.654E-06	8.179E-07	2.610E-05	2.293E-06	2.128E-06
3.571	2.000	1.021E-07	9.655E-07	5.189E-07	8.806E-06	8.135E-07	7.184E-07

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
1.237	.200	111.7	89.0	.1	107.0	-79.3	-141.5
1.308	.250	103.4	90.9	-.1	124.5	-76.2	-129.1
1.364	.300	97.4	90.9	-.1	135.1	-75.5	-156.4
1.400	.350	92.6	91.0	-.1	146.8	-74.3	-171.6
1.433	.400	88.5	92.7	-.3	158.6	-71.5	-177.0
1.463	.450	85.3	97.7	-.4	166.9	-67.1	-166.6
1.492	.500	82.6	96.0	-.1	166.3	-60.9	-161.6
1.521	.550	80.0	92.2	1.9	166.6	-52.2	-169.4
1.549	.600	77.6	88.7	8.5	178.3	-40.4	-179.9
1.577	.625	75.9	88.5	15.4	175.6	-32.1	176.7
1.604	.650	76.2	85.9	26.3	173.1	-21.8	174.5
1.632	.675	75.1	89.0	41.2	171.2	-10.0	172.3
1.659	.700	73.6	88.5	59.1	169.8	2.5	170.1
1.687	.725	71.4	87.4	77.6	168.9	14.6	167.7
1.714	.750	68.6	85.0	94.6	168.4	25.3	164.8
1.742	.800	61.3	83.2	115.9	171.9	45.5	159.1
1.769	.850	49.3	83.7	83.7	181.2	61.7	152.4
1.797	.900	20.7	105.4	18.2	103.1	71.9	142.2
1.824	.950	-47.6	109.9	6.3	157.8	-42.2	115.6
1.852	1.000	-87.3	117.0	-.9	163.2	-70.1	47.7
1.879	1.050	-110.2	129.6	-11.5	143.0	-69.4	-.7
1.907	1.100	-135.3	157.1	-30.2	125.6	-71.2	-23.9
1.934	1.150	-175.7	90.8	-57.5	103.1	-87.2	-44.9
1.962	1.200	135.3	52.8	-82.0	34.1	-126.5	-85.9
1.989	1.250	100.6	28.4	-108.7	-9.5	-155.3	-160.3
2.017	1.300	38.1	-8.5	163.6	-46.5	-159.7	154.6
2.044	1.400	-41.9	-117.4	128.5	-131.9	50.9	79.3
2.072	1.500	142.1	57.0	-17.5	31.8	-144.3	-122.8
2.099	1.600	-170.9	-129.4	-136.0	170.1	62.5	2.9
2.127	1.800	-25.1	-46.1	131.1	-55.0	-57.3	138.6

REC = 51

HEADING = 150. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.209	.200	4.495E-01	2.161E-01	9.879E-01	1.631E-03	4.146E-03	5.772E-04
.264	.250	3.863E-01	2.263E-01	9.722E-01	4.917E-03	9.792E-03	1.528E-03
.320	.300	3.397E-01	2.461E-01	9.538E-01	1.460E-02	1.971E-02	3.873E-03
.378	.350	2.963E-01	2.199E-01	9.111E-01	4.043E-02	3.571E-02	7.203E-03
.435	.400	2.532E-01	1.770E-01	8.340E-01	1.102E-01	5.877E-02	1.109E-02
.496	.450	2.075E-01	1.322E-01	7.184E-01	3.145E-01	8.782E-02	1.545E-02
.557	.500	1.619E-01	9.295E-02	5.711E-01	1.053E+00	1.181E-01	2.139E-02
.619	.550	1.173E-01	5.478E-02	4.198E-01	4.499E+00	1.437E-01	3.276E-02
.682	.600	7.735E-02	7.079E-03	2.944E-01	4.490E+00	1.642E-01	1.596E-02
.744	.625	5.995E-02	4.183E-03	2.399E-01	2.459E+00	1.682E-01	9.461E-03
.773	.650	4.473E-02	2.586E-03	1.932E-01	1.422E+00	1.667E-01	7.254E-03
.811	.700	3.186E-02	1.151E-03	1.549E-01	8.749E-01	1.588E-01	6.155E-03
.844	.725	2.144E-02	3.650E-04	1.248E-01	5.536E-01	1.443E-01	5.209E-03
.878	.750	1.341E-02	4.104E-04	1.112E-01	3.626E-01	1.237E-01	4.198E-03
.905	.800	7.623E-03	1.139E-03	8.237E-02	2.341E-01	9.861E-02	3.144E-03
1.014	.850	1.503E-03	3.255E-03	5.400E-02	9.543E-02	4.495E-02	1.305E-03
1.084	.900	1.837E-05	3.523E-03	5.001E-02	3.819E-02	7.905E-03	3.588E-04
1.155	.950	2.166E-04	2.479E-03	7.772E-02	2.001E-02	9.211E-04	2.721E-04
1.227	1.000	3.493E-04	1.144E-03	8.386E-02	2.785E-02	9.822E-03	5.281E-04
1.300	1.050	1.852E-04	4.012E-04	4.024E-02	2.097E-02	1.261E-02	5.451E-04
1.375	1.100	2.418E-05	3.634E-04	6.332E-03	1.088E-02	7.468E-03	4.961E-04
1.450	1.150	1.602E-05	4.124E-04	4.925E-04	3.264E-03	1.842E-03	2.217E-04
1.527	1.200	6.457E-05	2.815E-04	2.459E-03	1.660E-03	1.048E-04	1.326E-04
1.605	1.250	5.202E-05	1.248E-04	1.601E-03	1.552E-03	5.558E-04	1.262E-04
1.684	1.300	1.127E-05	8.349E-05	3.436E-04	8.729E-04	6.542E-04	8.131E-05
1.845	1.400	3.535E-06	7.074E-05	2.053E-04	2.558E-04	1.815E-04	3.648E-05
2.102	1.500	4.606E-06	2.364E-05	3.755E-05	2.095E-04	1.026E-04	2.492E-05
2.535	1.600	9.053E-07	1.698E-05	1.826E-05	2.698E-05	3.684E-05	2.845E-06
2.910	2.000	2.560E-06	3.904E-06	2.051E-05	2.690E-05	1.557E-05	2.599E-06
		3.993E-07	1.364E-06	4.565E-06	7.890E-06	9.421E-06	1.324E-06

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.209	.200	100.8	89.5	.1	101.3	-90.3	-177.8
.264	.250	93.4	90.2	.1	109.2	-88.1	-175.0
.321	.300	94.3	90.7	-2	119.2	-86.4	-174.0
.378	.350	90.1	90.3	-3	126.4	-84.6	-180.0
.435	.400	88.5	90.2	-4	132.3	-82.4	173.6
.496	.450	83.1	91.4	-8	138.4	-79.4	167.7
.557	.500	79.8	95.8	-1.8	148.2	-75.8	163.4
.619	.550	76.6	113.2	-3.9	179.4	-71.5	172.1
.682	.600	73.8	117.2	-8.0	-113.5	-68.4	-164.4
.714	.625	72.3	100.8	-11.2	-96.1	-63.4	-171.9
.746	.650	70.9	97.1	-15.4	-87.8	-60.1	177.3
.779	.675	69.3	103.7	-20.6	-84.5	-58.4	167.8
.811	.700	67.8	133.2	-26.8	-84.4	-52.3	159.4
.844	.725	66.1	-168.1	-33.7	-87.0	-47.8	151.3
.878	.750	64.4	-144.5	-41.4	-92.1	-42.9	142.6
.915	.800	59.7	-138.2	-60.3	-111.9	-31.9	119.6
1.014	.850	29.9	-139.2	-85.6	-144.4	-13.9	83.6
1.084	.900	-115.5	-144.9	-97.9	178.8	-155.9	17.1
1.155	.950	-123.9	-159.5	-89.0	154.4	-150.7	-19.7
1.227	1.000	-132.5	163.0	-74.9	137.2	-137.0	-40.9
1.301	1.050	-143.6	105.4	-69.4	118.4	-124.0	-63.2
1.375	1.100	56.7	69.2	-176.3	82.8	-103.0	-98.1
1.451	1.150	38.6	39.0	168.1	22.1	-21.0	-150.5
1.527	1.200	26.4	-2.5	-179.8	-20.5	61.9	165.8
1.605	1.250	5.4	-59.4	-144.2	-52.4	75.9	129.7
1.684	1.300	-115.5	-104.7	-61.4	-108.6	82.3	77.5
1.805	1.400	163.4	135.0	-33.4	139.1	-51.7	-29.5
2.182	1.600	-118.2	-104.6	-34.8	-112.3	135.2	83.9
2.536	1.800	-3.4	-13.9	158.2	-19.4	-30.7	154.5
2.913	2.000	-134.5	90.9	18.7	25.2	-126.9	-154.5

REC = 52

HEADING = 150. DEG
RAO (MOTION/WAVEHT)**2

SHIP SPEED = 10. KNOTS

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.218	.200	3.781E-01	1.956E-01	9.811E-01	1.739E-03	4.368E-03	3.846E-04
.278	.250	3.126E-01	2.156E-01	9.795E-01	5.624E-01	1.001E-02	1.124E-03
.341	.300	2.651E-01	2.197E-01	9.676E-01	1.765E-02	1.991E-02	2.954E-03
.406	.350	2.237E-01	1.881E-01	9.329E-01	5.231E-02	3.623E-02	5.591E-03
.473	.400	1.846E-01	1.468E-01	8.619E-01	1.595E-01	6.032E-02	8.814E-03
.542	.450	1.468E-01	1.074E-01	7.543E-01	5.638E-01	9.100E-02	1.824E-02
.614	.500	1.109E-01	6.603E-02	6.256E-01	2.386E+00	1.236E-01	2.079E-02
.688	.550	7.810E-02	1.912E-02	5.230E-01	2.425E+00	1.608E-01	1.212E-02
.764	.600	4.997E-02	1.023E-02	4.349E-01	9.392E-01	1.904E-01	7.013E-03
.803	.625	3.814E-02	6.567E-03	3.991E-01	6.359E-01	1.984E-01	6.383E-03
.842	.650	2.799E-02	3.491E-03	3.681E-01	4.488E-01	1.993E-01	5.833E-03
.882	.675	1.957E-02	1.389E-03	3.363E-01	3.227E-01	1.943E-01	5.163E-03
.923	.700	1.288E-02	3.619E-04	2.975E-01	2.318E-01	1.737E-01	4.346E-03
.964	.725	7.792E-03	2.410E-04	2.503E-01	1.581E-01	1.481E-01	3.413E-03
1.006	.750	4.165E-03	5.517E-04	1.947E-01	9.735E-02	1.172E-01	2.486E-03
1.091	.800	5.740E-04	1.498E-03	5.946E-02	3.352E-02	4.659E-02	1.052E-03
1.179	.850	5.920E-06	1.962E-03	2.909E-02	1.300E-02	6.117E-03	3.175E-04
1.268	.900	1.271E-04	1.623E-03	5.344E-02	1.063E-02	3.086E-04	2.022E-04
1.360	.950	1.795E-04	7.668E-04	3.442E-02	1.110E-02	4.271E-03	3.442E-04
1.455	1.000	7.821E-05	2.186E-04	9.296E-03	7.934E-03	5.043E-03	3.674E-04
1.551	1.050	3.591E-06	1.225E-04	6.265E-04	3.364E-03	2.646E-03	2.248E-04
1.650	1.100	1.781E-05	1.481E-04	2.545E-04	7.924E-04	6.626E-04	8.389E-05
1.751	1.150	3.036E-05	1.036E-04	5.913E-04	4.152E-04	1.231E-05	4.187E-05
1.855	1.200	1.295E-05	3.377E-05	2.491E-04	4.940E-04	1.107E-04	4.307E-05
1.960	1.250	4.770E-06	1.911E-05	4.237E-05	2.261E-04	9.519E-05	2.439E-05
2.068	1.300	3.748E-06	2.272E-05	8.477E-05	7.257E-05	7.286E-05	9.776E-06
2.291	1.400	1.290E-06	9.297E-06	3.159E-06	9.584E-05	3.360E-05	8.633E-06
2.764	1.600	2.993E-07	8.567E-06	2.701E-06	3.001E-05	2.163E-05	2.110E-06
3.273	1.800	1.061E-06	2.842E-06	5.211E-06	1.809E-05	7.401E-06	1.495E-06
3.820	2.000	1.580E-07	2.242E-06	2.189E-06	1.757E-06	4.174E-06	2.296E-07

PHASE (MOTION-WAVEVENT)

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.218	.200	105.8	89.3	.2	103.0	-87.9	-172.7
.273	.250	99.5	90.5	.0	113.4	-85.6	-167.4
.341	.300	94.3	90.6	-.2	123.3	-83.8	-171.0
.405	.350	90.1	90.2	-.3	130.5	-81.9	-178.9
.473	.400	86.4	90.5	-.6	138.0	-79.2	173.9
.542	.450	82.9	93.0	-1.2	149.7	-75.5	168.8
.614	.500	79.8	104.2	-2.6	-176.9	-70.9	176.0
.688	.550	77.1	102.5	-5.0	-112.1	-65.3	-164.0
.764	.600	74.4	90.1	-8.5	-34.9	-58.0	-178.4
.803	.625	73.0	89.0	-10.3	-80.1	-53.6	173.6
.842	.650	71.7	90.1	-11.8	-78.3	-48.6	166.3
.882	.675	70.4	96.1	-12.4	-78.7	-43.0	159.3
.923	.700	69.0	119.9	-11.9	-81.0	-36.6	152.0
.964	.725	67.6	-178.0	-10.1	-84.4	-29.1	145.4
1.005	.750	66.3	-146.5	-6.3	-83.2	-19.5	140.6
1.091	.800	60.8	-130.5	-3.6	-103.6	2.8	127.0
1.179	.850	-2.6	-129.1	-51.2	-135.3	23.9	96.5
1.269	.900	-114.2	-134.8	-56.0	-175.2	-154.6	33.7
1.360	.950	-122.7	-149.4	-39.7	158.6	-125.7	-8.5
1.455	1.000	-130.3	177.3	-20.3	140.7	-107.0	-31.0
1.551	1.050	-152.4	115.9	2.7	122.0	-89.3	-51.8
1.650	1.100	49.9	75.4	162.3	86.7	-65.2	-84.7
1.751	1.150	40.2	46.5	-188.0	12.2	10.9	-145.9
1.855	1.200	17.8	5.3	-166.2	-30.5	114.4	166.9
1.960	1.250	-57.3	-68.7	139.8	-64.1	131.0	130.1
2.068	1.300	-107.6	-117.6	88.0	-138.2	134.1	67.1
2.291	1.400	143.4	115.7	66.5	116.8	-20.3	-40.5
2.764	1.600	170.8	-109.7	-66.7	-138.4	112.2	60.6
3.273	1.800	-24.1	-13.0	148.3	-29.7	-55.6	146.5
3.820	2.000	-132.3	50.5	56.1	73.9	-119.2	-149.5

REC = 53

HEADING = 150. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	3.207E-01	1.748E-01	9.890E-01	1.846E-03	4.590E-03	2.297E-04
.293	.250	2.558E-01	1.997E-01	9.893E-01	6.434E-03	1.011E-02	7.624E-04
.361	.300	2.100E-01	1.933E-01	9.853E-01	2.137E-02	1.993E-02	2.207E-03
.434	.350	1.719E-01	1.600E-01	9.582E-01	6.817E-02	3.651E-02	4.386E-03
.509	.400	1.379E-01	1.219E-01	8.989E-01	2.351E-01	6.146E-02	7.335E-03
.588	.450	1.068E-01	8.336E-02	8.056E-01	9.658E-01	9.302E-02	1.211E-02
.670	.500	7.869E-02	3.609E-02	7.410E-01	1.576E+00	1.327E-01	1.075E-02
.755	.550	5.403E-02	2.001E-02	7.039E-01	7.293E-01	1.768E-01	6.390E-03
.843	.600	3.363E-02	1.012E-02	7.014E-01	3.807E-01	2.132E-01	5.639E-03
.891	.625	2.526E-02	6.076E-03	7.040E-01	2.908E-01	2.222E-01	5.321E-03
.933	.650	1.819E-02	3.056E-03	6.909E-01	2.245E-01	2.209E-01	4.859E-03
.985	.675	1.224E-02	1.301E-03	6.720E-01	1.585E-01	2.111E-01	4.148E-03
1.034	.700	7.623E-03	4.088E-04	6.033E-01	1.088E-01	1.864E-01	3.390E-03
1.083	.725	4.344E-03	9.986E-05	4.478E-01	7.013E-02	1.452E-01	2.661E-03
1.134	.750	2.224E-03	1.847E-04	2.456E-01	4.449E-02	9.690E-02	1.991E-03
1.186	.800	3.452E-04	8.742E-04	1.565E-02	1.596E-02	2.645E-02	9.256E-04
1.343	.850	7.171E-06	1.304E-03	1.614E-02	5.782E-03	2.255E-03	2.852E-04
1.452	.900	7.863E-05	9.531E-04	2.330E-02	4.635E-03	6.059E-04	1.134E-04
1.565	.950	9.474E-05	4.253E-04	1.164E-02	4.737E-03	2.508E-03	1.761E-04
1.682	1.000	3.577E-05	1.033E-04	2.766E-03	3.281E-03	2.206E-03	1.867E-04
1.802	1.050	2.622E-06	4.580E-05	1.116E-04	1.196E-03	7.839E-04	9.916E-05
1.925	1.100	4.627E-06	6.836E-05	1.458E-04	1.977E-04	9.964E-05	2.783E-05
2.052	1.150	5.921E-06	4.325E-05	1.881E-04	1.959E-04	3.817E-05	1.569E-05
2.182	1.200	2.596E-06	1.414E-05	5.228E-05	2.306E-04	6.608E-05	1.917E-05
2.315	1.250	3.114E-06	1.127E-05	3.535E-05	9.490E-05	2.910E-05	1.120E-05
2.452	1.300	4.525E-06	1.226E-05	4.195E-05	6.460E-05	2.360E-05	6.480E-06
2.587	1.350	4.675E-07	1.002E-05	1.028E-06	6.284E-05	1.108E-05	5.535E-06
3.245	1.400	1.795E-08	5.919E-06	6.917E-07	2.479E-05	6.681E-06	1.493E-06
4.003	1.450	3.792E-07	1.685E-06	1.743E-06	1.333E-05	2.301E-06	1.135E-06
4.729	2.000	1.960E-08	5.957E-07	4.493E-07	1.742E-06	1.374E-06	2.409E-07

PHASE (MOTION-WAVEVENT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	106.9	89.2	.2	105.1	-85.4	-166.7
.293	.250	99.6	90.7	-.0	118.4	-82.9	-159.5
.361	.300	94.3	90.6	-.2	128.1	-81.1	-168.3
.434	.350	90.0	90.3	-.4	135.1	-79.0	-178.0
.509	.400	86.3	91.2	-.8	147.3	-75.9	174.7
.583	.450	82.9	96.6	-1.6	173.0	-71.4	174.9
.673	.500	80.2	102.3	-2.9	-125.9	-65.8	-164.7
.755	.550	77.6	92.2	-4.5	-89.5	-58.4	-171.2
.845	.600	75.1	88.2	-4.5	-77.8	-48.3	174.9
.891	.650	73.9	87.7	-2.9	-76.1	-42.2	168.3
.933	.675	72.7	89.1	.5	-75.4	-35.1	161.6
.986	.700	71.8	94.6	6.8	-75.5	-26.0	157.4
1.034	.725	70.8	107.8	17.0	-77.1	-14.8	154.1
1.083	.750	69.2	152.6	30.6	-78.9	-2.3	150.5
1.134	.800	66.7	-145.0	45.3	-82.2	10.6	146.1
1.235	.850	57.5	-120.7	53.9	-96.1	34.0	132.9
1.343	.900	-25.0	-121.2	-33.0	-130.7	59.9	104.8
1.452	.950	-106.9	-127.8	-20.5	-175.7	-126.6	43.4
1.565	.990	-117.5	-139.9	-5.5	157.3	-101.4	-1.9
1.682	1.000	-126.5	-169.2	5.9	140.8	-86.6	-23.8
1.802	1.050	-169.2	115.2	-19.8	121.1	-79.4	-45.4
1.925	1.100	78.2	73.3	-121.1	73.3	-91.3	-83.8
2.052	1.150	48.3	45.4	-139.7	-9.3	179.9	-155.6
2.182	1.200	.1	-5.2	-163.8	-45.6	157.5	156.1
2.315	1.250	-70.9	-78.7	125.9	-87.1	149.5	115.1
2.452	1.300	-103.6	-128.8	92.1	-155.1	98.2	48.0
2.737	1.400	-177.1	110.2	49.6	-99.9	-45.1	-55.9
3.346	1.600	51.2	-103.8	-176.4	-146.2	77.1	42.0
4.004	1.800	-11.5	-43.0	151.3	-25.3	-57.1	166.3
4.723	2.000	-123.0	32.5	53.3	67.1	-114.1	-144.5

REC = 54

HEADING = 150. DEG
SHIP SPEED = 20. KNOTS
RAO (MOTION/VAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.236	.200	2.737E-01	1.547E-01	9.911E-01	1.949E-03	4.803E-03	1.263E-04
.307	.250	2.114E-01	1.812E-01	1.002E+00	7.361E-03	1.006E-02	4.980E-04
.382	.300	1.685E-01	1.685E-01	1.007E+00	2.594E-02	1.972E-02	1.644E-03
.461	.350	1.343E-01	1.360E-01	9.909E-01	8.991E-02	3.647E-02	3.516E-03
.546	.400	1.051E-01	1.010E-01	9.965E-01	3.542E-01	6.197E-02	6.433E-03
.634	.450	7.959E-02	5.843E-02	8.993E-01	1.064E+00	9.546E-02	9.102E-03
.727	.500	5.736E-02	3.023E-02	9.140E-01	6.681E-01	1.395E-01	5.631E-03
.825	.550	3.849E-02	1.857E-02	9.909E-01	3.456E-01	1.881E-01	4.845E-03
.927	.600	2.329E-02	8.706E-03	1.114E+00	2.150E-01	2.255E-01	4.652E-03
1.089	.650	1.700E-02	5.213E-03	1.183E+00	1.623E-01	2.340E-01	4.272E-03
1.146	.700	1.170E-02	2.840E-03	1.214E+00	1.161E-01	2.284E-01	3.759E-03
1.233	.750	7.564E-03	1.295E-03	1.076E+00	8.222E-02	1.994E-01	3.235E-03
1.382	.800	4.576E-03	4.173E-04	7.471E-01	5.727E-02	1.508E-01	2.709E-03
1.507	.850	2.577E-03	5.486E-05	3.003E-01	3.891E-02	9.893E-02	2.198E-03
1.637	.900	1.325E-03	6.733E-05	1.355E-01	2.564E-02	5.752E-02	1.716E-03
1.771	.950	1.945E-04	5.371E-04	2.027E-03	8.328E-03	1.164E-02	7.292E-04
1.909	1.000	1.032E-05	7.440E-04	1.171E-02	2.563E-03	3.915E-04	1.804E-04
2.053	1.050	5.332E-05	5.635E-04	1.139E-02	2.201E-03	6.066E-04	5.777E-05
2.201	1.100	5.343E-05	2.129E-04	4.440E-03	2.434E-03	1.173E-03	9.225E-05
2.353	1.150	2.023E-05	3.327E-05	9.776E-04	1.585E-03	7.449E-04	9.235E-05
2.510	1.200	3.473E-06	2.012E-05	2.035E-04	4.933E-04	2.330E-04	4.469E-05
2.671	1.250	2.764E-06	3.734E-05	1.274E-04	9.810E-05	4.340E-05	1.092E-05
2.837	1.300	2.211E-06	2.774E-05	6.803E-05	1.348E-04	3.874E-05	8.658E-06
3.023	1.350	1.421E-06	1.087E-05	1.339E-05	1.465E-04	2.938E-05	1.228E-05
3.183	1.400	2.353E-06	9.721E-06	1.633E-05	6.677E-05	1.014E-05	7.922E-06
3.393	1.450	2.351E-06	1.046E-05	1.635E-05	6.001E-05	4.971E-06	5.840E-06
3.640	1.500	7.249E-07	6.440E-06	5.776E-06	5.381E-05	2.118E-07	4.148E-06
4.745	1.550	8.020E-08	3.515E-06	2.133E-06	2.011E-05	2.249E-06	1.663E-06
5.640	1.600	1.584E-07	4.314E-07	7.366E-07	1.147E-05	1.383E-06	1.022E-06
	2.000	6.008E-08	6.027E-07	4.567E-07	8.043E-07	1.244E-06	2.1147E-07

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.236	.200	106.9	89.0	.1	107.3	-82.8	-159.0
.307	.250	99.6	90.8	-.1	123.4	-79.9	-150.4
.382	.300	94.3	90.6	-.2	132.9	-78.4	-165.6
.461	.350	90.0	90.6	-.4	142.4	-76.2	-177.2
.546	.400	86.3	92.6	-.9	160.1	-72.5	-176.9
.634	.450	83.2	100.9	-1.5	-151.3	-67.4	-170.0
.727	.500	80.6	95.6	-2.2	-99.6	-60.4	-163.4
.825	.550	78.2	90.2	-1.3	-79.9	-50.8	-175.7
.927	.600	75.9	87.2	4.6	-74.2	-37.8	-171.3
.980	.625	75.1	87.9	11.4	-72.9	-28.9	-166.8
1.034	.650	74.4	89.8	22.7	-71.7	-17.6	-164.1
1.089	.675	73.2	92.6	38.4	-71.3	-4.6	-161.3
1.146	.700	71.4	98.5	56.9	-71.8	8.9	-158.2
1.203	.725	68.8	124.4	75.7	-73.2	21.7	-154.6
1.262	.750	65.4	-130.9	92.0	-76.0	33.2	-150.0
1.382	.800	52.5	-113.4	58.2	-92.1	55.6	-139.0
1.507	.850	-36.7	-116.0	-9.1	-132.5	84.6	-114.2
1.637	.900	-101.4	-121.5	.7	-179.8	-103.2	-92.0
1.771	.950	-115.3	-133.0	1.8	154.6	-86.5	.9
1.909	1.000	-133.1	-167.3	-10.3	137.9	-79.2	-22.1
2.053	1.050	179.2	100.4	-52.5	115.4	-81.7	-44.9
2.201	1.100	93.9	57.1	-98.5	53.1	-114.0	-91.6
2.353	1.150	57.4	27.0	-124.4	-20.3	-169.7	-172.3
2.510	1.200	-1.8	-23.3	-176.2	-56.0	165.6	142.4
2.671	1.250	-61.6	-91.3	118.3	-104.0	139.8	97.8
2.837	1.300	-90.6	-142.7	90.6	-173.5	70.8	35.4
3.003	1.400	169.1	110.7	-10.3	93.3	-69.9	-65.6
3.183	1.500	-57.6	-120.7	155.4	-144.5	48.2	49.7
3.368	1.600	-32.2	-11.0	130.2	-41.1	-76.3	143.1
3.558	1.700	-133.8	57.7	46.7	40.4	-120.8	-178.5

REC = 55

HEADING = 150. DEG
RAOSHIP SPEED = 25. KNOTS
(MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.245	.200	2.351E-01	1.361E-01	9.949E-01	2.030E-03	4.988E-03	6.603E-05
.321	.250	1.762E-01	1.619E-01	1.018E+00	8.425E-03	9.845E-03	3.274E-04
.402	.300	1.368E-01	1.461E-01	1.033E+00	3.172E-02	1.925E-02	1.234E-03
.489	.350	1.065E-01	1.160E-01	1.030E+00	1.236E-01	3.604E-02	2.911E-03
.582	.400	8.157E-02	8.308E-02	1.003E+00	5.577E-01	6.177E-02	5.969E-03
.680	.450	6.059E-02	4.139E-02	1.033E+00	8.129E-01	9.689E-02	5.459E-03
.784	.500	4.280E-02	2.681E-02	1.153E+00	3.746E-01	1.431E-01	3.790E-03
.894	.550	2.809E-02	1.614E-02	1.386E+00	2.195E-01	1.934E-01	3.861E-03
1.009	.600	1.621E-02	7.465E-03	1.724E+00	1.303E-01	2.305E-01	3.597E-03
1.063	.625	1.144E-02	4.598E-03	1.807E+00	9.551E-02	2.288E-01	3.293E-03
1.130	.650	7.659E-03	2.546E-03	1.579E+00	7.023E-02	2.008E-01	2.972E-03
1.193	.675	4.870E-03	1.176E-03	1.056E+00	5.132E-02	1.525E-01	2.638E-03
1.257	.700	2.944E-03	3.713E-04	5.302E-01	3.708E-02	1.016E-01	2.295E-03
1.322	.725	1.646E-03	3.551E-05	1.897E-01	2.538E-02	6.031E-02	1.867E-03
1.383	.750	8.107E-04	2.280E-05	4.171E-02	1.519E-02	3.069E-02	1.313E-03
1.527	.800	1.153E-04	2.969E-04	2.568E-03	4.290E-03	4.567E-03	5.065E-04
1.671	.850	1.082E-05	4.429E-04	7.737E-03	1.271E-03	4.468E-05	1.171E-04
1.821	.900	3.453E-05	2.939E-04	5.122E-03	1.460E-03	3.602E-04	2.911E-05
1.976	.950	3.106E-05	9.626E-05	1.957E-03	1.529E-03	5.375E-04	5.081E-05
2.136	1.000	1.162E-05	1.009E-05	5.232E-04	9.032E-04	3.102E-04	5.284E-05
2.303	1.050	2.809E-06	1.086E-05	1.570E-04	2.862E-04	9.249E-05	2.474E-05
2.475	1.100	2.507E-06	2.767E-05	7.774E-05	8.270E-05	2.547E-05	5.765E-05
2.653	1.150	2.057E-06	2.021E-05	2.599E-05	1.273E-04	1.947E-05	7.418E-06
2.837	1.200	1.567E-06	8.554E-06	1.435E-05	1.133E-04	7.843E-06	9.754E-06
3.026	1.250	1.891E-06	8.572E-06	2.239E-05	5.487E-05	4.301E-06	6.295E-06
3.223	1.300	1.271E-06	9.447E-06	5.219E-06	5.131E-05	8.262E-06	4.422E-06
3.623	1.400	1.194E-06	5.613E-06	9.223E-06	4.000E-05	7.976E-07	2.889E-06
4.510	1.500	1.659E-08	2.460E-06	1.083E-06	1.593E-05	2.572E-06	1.176E-06
5.481	1.600	1.719E-07	4.670E-07	4.503E-07	7.337E-06	8.261E-07	6.124E-07
6.549	2.000	3.666E-08	3.171E-07	2.566E-07	7.935E-07	7.601E-07	1.600E-07

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.245	.200	107.0	89.9	.1	109.2	-80.0	-143.3
.321	.250	99.7	90.9	-.1	127.7	-76.9	-139.7
.402	.300	94.3	90.7	-.2	136.9	-75.7	-163.3
.489	.350	90.0	91.0	-.3	147.9	-73.4	-176.6
.582	.400	86.3	95.1	-.7	175.5	-68.3	-178.7
.683	.450	83.5	100.1	-.9	-119.1	-63.4	-157.6
.784	.500	81.0	92.9	-.0	-83.8	-55.0	-164.9
.894	.550	73.8	88.8	4.7	-72.1	-43.2	-178.5
1.009	.600	77.2	88.2	19.4	-67.7	-25.6	-172.1
1.153	.625	76.5	89.0	33.8	-66.0	-13.3	169.6
1.130	.550	75.4	89.6	52.6	-64.9	.5	167.2
1.193	.675	73.5	89.9	73.5	-64.5	14.4	164.4
1.257	.700	70.9	90.1	93.4	-64.7	27.2	161.2
1.322	.725	67.7	97.0	110.1	-56.5	38.9	157.4
1.333	.750	63.4	-121.8	119.2	-71.2	50.8	153.8
1.527	.800	47.3	-109.0	23.9	-89.2	71.5	144.1
1.671	.850	-41.8	-111.1	4.4	-133.9	102.9	122.7
1.821	.900	-96.6	-116.6	2.3	176.2	-85.4	52.7
1.975	.950	-114.9	-127.9	-4.3	153.2	-70.6	-26.0
2.136	1.000	-137.7	-165.0	-20.4	133.3	-72.8	-51.1
2.303	1.050	170.6	72.4	-56.1	105.0	-81.4	-107.3
2.475	1.100	105.5	42.2	-92.0	36.7	-124.1	174.1
2.653	1.150	61.9	13.9	-127.5	-24.2	-168.7	133.1
2.837	1.200	2.0	-37.5	158.4	-60.2	168.6	89.2
3.026	1.250	-35.8	-104.3	126.3	-103.9	80.4	34.2
3.220	1.300	-82.5	-143.2	108.0	-175.6	60.2	-69.6
3.623	1.400	165.9	115.1	-19.7	90.0	161.0	49.8
4.510	1.600	34.5	-106.2	-176.9	-146.3	56.0	151.2
5.481	1.800	-17.9	-36.0	151.4	-36.7	-64.5	-163.0
6.543	2.000	-142.4	42.9	37.4	51.3	-128.3	

REC = 56

HEADING = 165. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	5.39E-01	5.70E-02	9.84E-01	4.44E-04	5.10E-03	1.90E-04
.250	.250	4.65E-01	5.98E-02	9.63E-01	1.37E-03	1.20E-02	5.07E-04
.300	.300	4.06E-01	6.37E-02	9.36E-01	4.19E-03	2.42E-02	1.26E-03
.350	.350	3.49E-01	5.55E-02	8.78E-01	1.19E-02	4.34E-02	2.29E-03
.400	.400	2.90E-01	4.31E-02	7.82E-01	3.33E-02	7.03E-02	3.43E-03
.450	.450	2.30E-01	3.09E-02	6.45E-01	9.79E-02	1.02E-01	4.62E-03
.500	.500	1.69E-01	2.10E-02	4.82E-01	3.52E-01	1.32E-01	6.28E-03
.550	.550	1.14E-01	1.26E-02	3.27E-01	1.97E+00	1.52E-01	1.06E-02
.600	.600	6.73E-02	4.46E-04	2.05E-01	1.28E+00	1.61E-01	3.01E-03
.625	.625	4.84E-02	2.66E-04	1.57E-01	5.80E-01	1.56E-01	1.75E-03
.650	.650	3.29E-02	1.20E-04	1.20E-01	3.05E-01	1.45E-01	1.38E-03
.675	.675	2.09E-02	7.73E-05	9.22E-02	1.73E-01	1.27E-01	1.14E-03
.700	.700	1.20E-02	2.15E-04	7.25E-02	1.02E-01	1.04E-01	8.93E-04
.725	.725	6.09E-03	4.93E-04	5.88E-02	6.13E-02	7.74E-02	6.31E-04
.750	.750	2.50E-03	9.08E-04	4.94E-02	3.69E-02	5.55E-02	3.92E-04
.800	.800	5.30E-05	1.11E-03	4.38E-02	1.52E-02	9.84E-03	1.01E-04
.850	.850	2.56E-04	7.65E-04	6.83E-02	1.01E-02	8.24E-04	7.23E-05
.900	.900	4.31E-04	3.27E-04	8.93E-02	9.23E-03	1.31E-02	1.49E-04
.950	.950	1.95E-04	1.01E-04	5.01E-02	6.47E-03	1.70E-02	1.77E-04
1.000	1.000	1.12E-05	9.99E-05	7.43E-03	2.97E-03	9.09E-03	1.25E-04
1.050	1.050	3.17E-05	1.27E-04	1.27E-03	9.20E-04	1.69E-03	6.07E-05
1.100	1.100	7.90E-05	7.68E-05	3.54E-03	5.86E-04	1.30E-04	4.11E-05
1.150	1.150	4.05E-05	3.34E-05	1.87E-03	5.25E-04	8.71E-04	3.74E-05
1.200	1.200	3.80E-06	2.62E-05	2.10E-04	2.11E-04	6.51E-04	2.04E-05
1.250	1.250	1.20E-05	1.81E-05	4.20E-04	8.38E-05	7.86E-05	1.08E-05
1.300	1.300	1.38E-05	8.58E-06	2.70E-04	9.92E-05	6.27E-05	1.02E-05
1.350	1.350	1.44E-05	5.92E-06	1.53E-04	3.37E-05	3.31E-05	3.27E-06
1.400	1.400	5.14E-06	6.96E-07	3.91E-05	1.82E-05	1.19E-05	2.16E-06
1.450	1.450	1.05E-06	7.17E-07	1.64E-05	4.84E-06	2.25E-05	6.44E-07
1.500	1.500	5.49E-08	5.00E-07	2.95E-06	7.78E-07	2.51E-06	2.00E-07

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	104.6	89.5	.1	102.2	-89.9	-178.1
.265	.250	97.8	90.2	.1	110.5	-87.7	-175.6
.323	.300	92.9	90.5	-.1	120.5	-85.9	-175.6
.381	.350	89.0	90.1	-.3	127.2	-84.0	178.3
.441	.400	85.4	90.2	-.5	132.2	-81.4	171.8
.501	.450	82.1	91.7	-1.0	136.8	-78.2	165.5
.563	.500	78.9	97.4	-2.5	144.6	-74.1	160.4
.627	.550	75.9	124.0	-5.6	179.4	-69.3	172.3
.691	.600	73.1	129.4	-11.8	-102.4	-63.6	-162.1
.724	.625	71.7	108.0	-15.7	-89.3	-60.2	-176.7
.757	.650	70.4	121.0	-23.3	-84.8	-56.4	170.0
.790	.675	69.0	173.4	-31.5	-84.8	-52.2	159.5
.824	.700	67.6	-149.8	-41.1	-88.3	-47.6	149.9
.853	.725	66.2	-139.7	-52.0	-95.0	-42.4	133.9
.893	.750	64.9	-137.7	-63.9	-105.6	-36.7	127.8
.962	.800	62.5	-141.6	-91.2	-139.7	-23.5	85.3
1.033	.850	-120.4	-147.3	-103.0	-178.6	179.9	13.3
1.105	.900	-124.7	-162.1	-103.7	154.9	-161.9	-24.6
1.179	.950	-131.8	157.2	-87.6	136.2	-143.3	-45.9
1.253	1.000	-152.0	96.0	-79.3	115.0	-127.0	-69.6
1.329	1.050	47.8	60.6	175.4	74.3	-106.5	-109.0
1.407	1.100	33.6	28.7	163.4	10.7	21.4	-164.5
1.485	1.150	17.9	-20.5	179.7	-29.1	70.7	152.8
1.565	1.200	-40.5	-78.1	-128.6	-66.9	83.1	111.7
1.645	1.250	-142.7	-123.0	-51.9	-138.2	83.7	50.9
1.728	1.300	-169.5	172.9	-33.0	164.6	-61.4	-5.2
1.897	1.400	59.2	61.1	-122.9	27.2	-9.4	-137.4
2.249	1.600	-155.3	112.3	44.4	140.8	-109.3	-39.2
2.620	1.800	114.3	-166.1	-85.5	173.4	94.5	6.5
3.014	2.000	-122.8	-99.2	172.1	163.5	57.9	-5.3

REC = 57

HEADING = 165. DEG
RAO (MOTION/HAVENT)*2

SHIP SPEED = 10. KNOTS

NE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.220	.200	4.457E-01	5.109E-02	9.855E-01	4.785E-04	5.348E-03	1.273E-04
.282	.250	3.684E-01	5.654E-02	9.728E-01	1.603E-03	1.229E-02	3.763E-04
.346	.300	2.909E-01	5.616E-02	9.525E-01	5.214E-03	2.450E-02	9.606E-04
.412	.350	2.559E-01	4.815E-02	9.018E-01	1.603E-02	4.433E-02	1.759E-03
.481	.400	2.054E-01	3.523E-02	8.127E-01	5.144E-02	7.272E-02	2.892E-03
.553	.450	1.571E-01	2.537E-02	6.855E-01	2.036E-01	1.067E-01	4.026E-03
.627	.500	1.122E-01	1.404E-02	5.463E-01	1.118E-00	1.409E-01	6.893E-03
.703	.550	7.705E-02	2.593E-03	4.342E-01	6.735E-01	1.745E-01	2.409E-03
.783	.600	4.173E-02	1.377E-03	3.435E-01	2.147E-01	1.919E-01	1.519E-03
.823	.625	2.933E-02	5.461E-04	2.067E-01	1.388E-01	1.898E-01	1.379E-03
.864	.650	1.971E-02	2.141E-04	2.721E-01	9.309E-02	1.784E-01	1.206E-03
.905	.675	1.222E-02	5.717E-05	2.335E-01	6.291E-02	1.573E-01	9.894E-04
.949	.700	6.265E-03	1.308E-04	1.965E-01	4.199E-02	1.276E-01	7.439E-04
.992	.725	3.267E-03	2.716E-04	1.376E-01	2.431E-02	9.526E-02	5.104E-04
1.035	.750	1.219E-03	4.157E-04	8.280E-02	1.359E-02	6.056E-02	3.158E-04
1.125	.800	1.093E-05	5.619E-04	3.049E-02	4.588E-03	9.943E-03	8.739E-05
1.216	.850	1.449E-04	4.552E-04	6.486E-02	3.387E-03	2.968E-04	4.919E-05
1.311	.900	2.199E-04	2.258E-04	5.054E-02	3.544E-03	5.260E-03	1.022E-04
1.404	.950	8.542E-05	5.874E-05	1.347E-02	2.432E-03	6.455E-03	1.076E-04
1.507	1.000	1.273E-06	3.761E-05	7.011E-04	9.318E-04	3.112E-03	6.120E-05
1.603	1.050	2.874E-05	4.474E-05	4.107E-04	2.000E-04	6.018E-04	2.120E-05
1.714	1.100	4.266E-05	2.727E-05	8.125E-04	1.415E-04	5.014E-05	1.272E-05
1.821	1.150	1.839E-05	8.630E-06	2.448E-04	1.372E-04	1.788E-04	1.217E-05
1.930	1.200	6.354E-05	5.149E-06	2.051E-05	4.548E-05	8.825E-05	5.622E-06
2.042	1.250	1.375E-05	5.336E-06	1.023E-04	2.713E-05	3.276E-08	3.023E-06
2.157	1.300	3.777E-06	2.055E-06	3.461E-05	3.792E-05	4.037E-05	3.321E-06
2.264	1.400	5.604E-06	2.366E-06	3.263E-05	2.052E-05	5.226E-06	1.552E-06
2.394	1.500	2.666E-06	9.340E-07	1.673E-05	8.286E-06	4.491E-06	1.029E-06
2.508	1.600	4.660E-07	4.291E-07	3.021E-06	2.566E-06	7.738E-06	3.504E-07
2.642	1.800	8.718E-09	4.971E-07	2.147E-06	1.591E-07	2.906E-06	6.609E-09

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.223	.200	104.6	89.3	.2	103.9	-87.7	-173.2
.282	.250	97.8	90.5	.0	115.0	-85.3	-168.4
.345	.300	92.9	90.5	-.2	124.5	-83.4	-172.9
.412	.350	88.9	90.1	-.4	131.0	-81.2	179.2
.481	.400	85.3	90.5	-.8	137.3	-78.1	171.8
.553	.450	82.0	93.9	-1.7	145.0	-74.0	166.2
.627	.500	79.0	112.5	-3.6	-170.8	-68.9	179.2
.703	.550	76.4	98.6	-6.9	-97.6	-62.5	-163.0
.783	.600	73.8	89.0	-11.7	-78.5	-54.1	174.8
.823	.625	72.6	91.5	-14.0	-76.5	-49.1	166.1
.864	.650	71.4	102.3	-15.6	-77.3	-43.3	158.2
.906	.675	70.2	148.7	-16.3	-80.3	-36.8	150.1
.949	.700	69.0	-155.0	-16.2	-85.7	-29.5	141.3
.992	.725	68.2	-140.1	-14.9	-91.2	-19.8	135.4
1.035	.750	67.1	-134.2	-15.0	-99.8	-8.5	128.0
1.125	.800	58.5	-131.5	-52.3	-131.3	17.3	98.7
1.216	.850	-118.8	-136.1	-65.5	-172.2	-167.7	31.5
1.311	.900	-125.4	-150.8	-49.5	161.3	-133.1	-11.3
1.408	.950	-131.6	172.2	-27.7	141.9	-111.5	-34.6
1.507	1.000	-162.0	106.5	-4.8	120.8	-91.5	-57.2
1.609	1.050	44.4	67.6	159.4	77.0	-63.3	-95.8
1.714	1.100	34.2	36.9	-169.6	3.3	42.3	-159.3
1.821	1.150	7.8	-13.0	-165.2	-36.8	108.0	155.2
1.932	1.200	-81.7	-85.7	115.4	-89.4	126.8	111.7
2.042	1.250	-122.8	-137.4	77.3	-166.0	-108.3	39.9
2.157	1.300	-162.0	157.6	75.1	141.6	-30.2	-16.5
2.294	1.400	56.5	44.5	-112.6	8.4	-8.5	-156.8
2.493	1.500	-165.2	117.5	28.5	131.6	-159.1	-44.6
2.842	1.600	123.7	-179.3	-95.3	172.1	92.4	3.6
4.031	2.000	-1.3	-141.3	-149.7	-104.0	57.9	19.5

REC = 58 HEADING = 165. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/NAVEHT)**2

ME	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	3.718E-01	4.515E-02	9.863E-01	5.125E-04	5.587E-03	7.699E-05
.298	.250	2.956E-01	5.188E-02	9.837E-01	1.877E-03	1.238E-02	2.593E-04
.363	.300	2.394E-01	4.877E-02	9.731E-01	6.498E-03	2.457E-02	7.175E-04
.443	.350	1.919E-01	3.917E-02	9.311E-01	2.191E-02	4.439E-02	1.368E-03
.522	.400	1.495E-01	2.904E-02	8.546E-01	8.505E-02	7.446E-02	2.255E-03
.604	.450	1.111E-01	1.938E-02	7.463E-01	4.752E-01	1.097E-01	4.101E-03
.690	.500	7.728E-02	5.515E-03	6.770E-01	5.616E-01	1.533E-01	2.409E-03
.780	.550	4.894E-02	3.367E-03	6.344E-01	1.868E-01	1.938E-01	1.405E-03
.874	.600	2.710E-02	1.309E-03	6.188E-01	8.921E-02	2.103E-01	1.278E-03
.922	.625	1.881E-02	5.968E-04	5.993E-01	6.514E-02	2.145E-01	1.157E-03
.971	.650	1.215E-02	2.015E-04	5.631E-01	4.520E-02	2.002E-01	9.804E-04
1.022	.675	7.117E-03	5.033E-05	4.960E-01	2.871E-02	1.747E-01	7.753E-04
1.073	.700	3.716E-03	3.886E-05	3.549E-01	1.771E-02	1.377E-01	5.803E-04
1.125	.725	1.664E-03	1.097E-04	1.768E-01	1.651E-02	8.339E-02	4.078E-04
1.178	.750	5.914E-04	2.129E-04	4.927E-02	5.993E-03	4.338E-02	2.644E-04
1.287	.800	3.976E-06	3.737E-04	1.291E-02	2.067E-03	5.005E-03	8.571E-05
1.400	.850	8.673E-05	2.857E-04	3.069E-02	1.463E-03	5.375E-04	3.197E-05
1.516	.900	1.118E-04	1.214E-04	1.611E-02	1.476E-03	3.119E-03	5.135E-05
1.636	.950	3.712E-05	2.782E-05	3.752E-03	9.579E-04	2.919E-03	5.394E-05
1.760	1.000	6.880E-07	1.371E-05	1.204E-04	3.151E-04	9.844E-04	2.655E-05
1.889	1.050	8.616E-06	2.043E-05	1.711E-04	4.798E-05	8.272E-05	6.698E-06
2.020	1.100	8.239E-06	1.110E-05	1.804E-04	6.461E-05	4.311E-05	8.985E-06
2.155	1.150	3.152E-06	3.317E-06	4.625E-05	5.951E-05	7.775E-05	8.180E-06
2.295	1.200	4.933E-06	3.165E-06	4.211E-05	2.110E-05	2.238E-05	2.607E-06
2.438	1.250	5.446E-06	2.843E-06	4.491E-05	2.468E-05	1.441E-05	2.015E-06
2.585	1.300	1.937E-06	2.565E-06	1.182E-05	2.792E-05	1.317E-05	2.095E-06
2.891	1.400	2.011E-06	1.772E-06	6.950E-06	1.681E-05	5.317E-06	1.453E-06
3.547	1.600	6.478E-07	7.545E-07	4.267E-06	5.583E-06	6.808E-07	5.642E-07
4.263	1.800	1.753E-07	1.165E-07	7.365E-07	1.941E-06	3.108E-06	2.335E-07
5.044	2.000	5.663E-09	1.018E-07	6.802E-07	2.134E-07	1.545E-06	4.373E-08

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	104.7	89.1	.2	106.0	-85.3	-167.6
.298	.250	97.9	90.6	-1	119.8	-82.7	-161.3
.368	.300	92.9	90.4	-3	128.7	-80.8	-170.6
.443	.350	88.8	90.2	-5	135.6	-78.4	179.7
.522	.400	85.2	91.4	-1.1	145.3	-74.7	172.0
.604	.450	82.0	100.7	-2.1	174.7	-69.6	174.8
.690	.500	79.4	101.3	-3.9	-107.0	-63.2	-158.4
.780	.550	77.0	88.8	-5.8	-77.9	-54.5	-176.2
.874	.600	74.7	87.2	-4.9	-71.9	-42.9	167.6
.922	.625	73.6	89.7	-2.1	-72.6	-35.7	160.3
.971	.650	72.7	93.3	3.3	-74.1	-26.9	154.5
1.022	.675	72.0	126.1	12.8	-75.4	-15.4	150.8
1.073	.700	70.9	-165.0	25.9	-73.4	-2.3	146.7
1.125	.725	68.9	-134.4	40.2	-83.3	11.8	141.6
1.178	.750	65.9	-125.3	48.9	-91.3	25.1	134.6
1.287	.800	32.0	-122.3	-40.2	-122.0	53.2	107.2
1.401	.850	-112.9	-128.6	-29.6	-169.9	-144.9	43.2
1.516	.900	-120.2	-141.3	-11.5	161.6	-107.0	-4.5
1.635	.950	-126.1	-172.6	5.6	144.0	-88.4	-26.5
1.761	1.000	172.9	107.1	-5.5	122.3	-77.2	-49.5
1.889	1.050	59.2	66.1	-137.1	63.6	-82.9	-94.6
2.020	1.100	36.0	38.2	-147.9	-16.1	159.9	-168.7
2.156	1.150	-19.9	-21.8	178.5	-52.2	169.3	144.7
2.295	1.200	-88.5	-96.5	103.2	-107.4	144.1	95.9
2.439	1.250	-119.4	-150.7	82.5	174.6	28.6	24.5
2.585	1.300	-150.5	140.8	65.7	130.0	-29.8	-27.9
2.891	1.400	53.5	33.9	-128.0	3.1	-71.0	-163.5
3.547	1.600	-167.2	93.7	2.1	132.0	153.2	-47.6
4.263	1.800	114.6	-145.5	-97.9	170.3	86.1	-2.6
5.044	2.000	15.5	-123.0	-129.1	-137.0	69.3	12.3

REC = 59 HEADING = 165. DEG DEG SHIP SPEED = 20. KNOTS
RAO RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.241	.200	3.135E-01	3.950E-02	9.882E-01	5.464E-04	5.812E-03	4.342E-05
.250	.250	2.400E-01	4.657E-02	9.979E-01	2.198E-03	1.230E-02	1.730E-04
.291	.300	1.804E-01	4.197E-02	9.957E-01	8.132E-03	2.437E-02	5.364E-04
.274	.350	1.468E-01	3.290E-02	9.681E-01	3.071E-02	4.504E-02	1.099E-03
.562	.400	1.144E-01	2.406E-02	9.094E-01	1.522E-01	7.528E-02	2.079E-03
.553	.450	8.085E-02	1.071E-02	8.653E-01	5.242E-01	1.144E-01	2.727E-03
.754	.500	5.492E-02	5.593E-03	8.821E-01	1.905E-01	1.631E-01	1.218E-03
.857	.550	3.390E-02	3.157E-03	9.651E-01	8.778E-02	2.101E-01	1.141E-03
.965	.600	1.866E-02	1.120E-03	1.057E+00	4.914E-02	2.347E-01	1.043E-03
1.021	.625	1.197E-02	5.553E-04	1.087E+00	3.335E-02	2.261E-01	9.058E-04
1.079	.650	7.365E-03	2.146E-04	9.542E-01	2.243E-02	1.964E-01	7.619E-04
1.137	.675	4.158E-03	4.867E-05	6.546E-01	1.400E-02	1.457E-01	6.178E-04
1.197	.700	2.130E-03	1.021E-05	3.079E-01	9.475E-03	9.147E-02	4.798E-04
1.259	.725	9.545E-04	5.577E-05	9.062E-02	5.841E-03	4.937E-02	3.537E-04
1.321	.750	3.352E-04	1.382E-04	1.053E-02	3.334E-03	2.232E-02	2.335E-04
1.449	.800	4.560E-06	2.155E-04	1.118E-02	9.354E-04	1.294E-03	5.679E-05
1.583	.850	5.699E-05	1.650E-04	1.455E-02	6.885E-04	6.024E-04	1.607E-05
1.722	.900	6.328E-05	6.365E-05	6.159E-03	7.344E-04	1.568E-03	2.657E-05
1.855	.950	2.064E-05	8.296E-06	1.167E-03	4.827E-04	9.895E-04	2.607E-05
2.014	1.000	2.077E-06	6.783E-06	1.550E-04	1.190E-04	2.735E-04	1.114E-05
2.168	1.050	3.770E-06	1.131E-05	1.209E-04	2.897E-05	3.331E-05	2.478E-06
2.327	1.100	3.015E-06	7.152E-06	6.588E-05	4.263E-05	3.929E-05	2.710E-06
2.491	1.150	1.848E-06	2.667E-06	1.747E-05	3.639E-05	3.221E-05	3.260E-06
2.651	1.200	3.378E-06	2.705E-06	1.924E-05	1.617E-05	8.639E-06	1.965E-06
2.835	1.250	2.753E-06	2.673E-06	1.545E-05	2.195E-05	3.466E-06	1.791E-06
3.014	1.300	9.983E-07	2.245E-06	7.399E-06	2.226E-05	2.022E-06	1.622E-06
3.293	1.400	1.031E-06	7.393E-07	8.695E-07	1.273E-05	4.199E-06	8.845E-07
4.436	1.600	5.927E-07	6.478E-07	2.185E-06	3.632E-06	6.693E-07	3.887E-07
5.935	1.800	9.867E-08	1.853E-07	1.835E-07	8.842E-07	1.305E-06	1.221E-07
6.160	2.000	1.516E-08	9.550E-08	3.282E-07	1.976E-07	6.589E-07	1.989E-08

PHASE (MOTION-WAVEHT)

HE	241	200	SURGE	104.7	SHAY	89.0	HEAVE	ROLL	PITCH	YAW
	.241	.200	104.7	89.0		.1	108.3	-82.9	-150.6	
	.313	.250	97.9	90.7		-.1	124.7	-80.0	-153.5	
	.391	.300	92.9	90.5		-.3	133.0	-78.2	-168.5	
	.474	.350	88.8	90.4		-.6	141.0	-75.4	-180.0	
	.562	.400	85.2	93.6		-1.2	158.5	-71.1	-174.2	
	.655	.450	82.3	106.2		-2.0	-134.5	-65.2	-161.1	
	.754	.500	79.9	92.0		-2.8	-83.3	-57.1	-164.9	
	.857	.550	77.6	87.5		-.8	-70.3	-45.8	-178.1	
	.965	.600	75.7	87.0		8.7	-58.5	-30.1	-164.6	
	1.021	.625	75.2	90.1		19.5	-67.7	-18.6	-161.7	
	1.073	.650	74.3	95.3		32.2	-67.9	-5.1	-158.7	
	1.137	.675	72.8	109.7		54.6	-69.0	9.3	-155.3	
	1.197	.700	70.4	-172.4		74.5	-71.5	33.3	-151.3	
	1.258	.725	67.3	-122.1		91.7	-75.8	36.0	-145.9	
	1.321	.750	62.8	-115.0		97.7	-83.8	48.3	-138.9	
	1.449	.800	-9.8	-116.8		-17.5	-121.8	80.5	-116.0	
	1.583	.850	-106.6	-122.3		-5.4	-171.9	-114.3	52.1	
	1.722	.900	-117.1	-133.4		2.7	160.4	-90.3	-.4	
	1.865	.950	-132.6	-170.4		-4.1	142.3	-79.6	-24.2	
	2.014	1.000	167.1	92.6		-53.8	118.6	-79.4	-47.9	
	2.163	1.050	76.5	52.3		-109.0	41.7	-114.8	-104.0	
	2.327	1.100	38.9	19.7		-133.8	-26.8	178.6	174.6	
	2.491	1.150	-24.6	-39.1		163.8	-53.6	157.4	130.4	
	2.661	1.200	-80.8	-108.6		103.9	-125.4	133.5	77.6	
	2.835	1.250	-111.6	-164.3		76.1	168.0	53.3	13.7	
	3.014	1.300	-163.3	136.6		18.6	122.8	18.3	-39.1	
	3.388	1.400	73.0	18.3		-129.5	4.8	-101.1	-150.2	
	4.196	1.500	-165.9	124.6		-.2	120.2	151.6	-53.8	
	5.085	1.800	131.8	-174.6		-59.9	172.7	94.4	-.1	
	6.060	2.000	-26.9	-142.5		-161.0	-128.4	54.0	18.8	

REC = 60

HEADING = 165. DEG
RAOSHIP SPEED = 25. KNOTS
(MOTION/NAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.251	.200	2.646E-01	3.516E-02	9.942E-01	5.834E-04	5.952E-03	2.115E-05
.323	.250	1.969E-01	4.119E-02	1.316E+00	2.573E-03	1.201E-02	1.158E-04
.414	.300	1.503E-01	3.600E-02	1.025E+00	1.025E-02	2.387E-02	4.064E-04
.505	.350	1.143E-01	2.787E-02	1.113E+00	4.512E-02	4.469E-02	9.241E-04
.603	.400	8.479E-02	1.948E-02	9.770E-01	2.942E-01	7.515E-02	2.119E-03
.707	.450	6.028E-02	7.475E-03	1.028E+00	2.687E-01	1.170E-01	1.193E-03
.817	.500	4.008E-02	5.229E-03	1.174E+00	9.654E-02	1.686E-01	8.916E-04
.933	.550	2.412E-02	2.721E-03	1.414E+00	5.404E-02	2.161E-01	9.426E-04
1.056	.600	1.199E-02	1.001E-03	1.593E+00	2.729E-02	2.323E-01	8.074E-04
1.120	.650	7.705E-03	5.066E-04	1.499E+00	1.918E-02	2.041E-01	7.173E-04
1.186	.700	4.639E-03	1.992E-04	9.886E-01	1.339E-02	1.527E-01	6.222E-04
1.253	.750	2.612E-03	4.181E-05	4.644E-01	9.210E-03	9.801E-02	5.251E-04
1.321	.800	1.331E-03	1.463E-06	1.468E-01	5.975E-03	5.489E-02	4.112E-04
1.391	.850	5.686E-04	2.870E-05	2.345E-02	3.319E-03	2.546E-02	2.703E-04
1.463	.900	1.911E-04	7.405E-05	1.025E-03	1.598E-03	9.529E-03	1.609E-04
1.611	.950	5.386E-06	1.274E-04	8.276E-03	4.412E-04	2.835E-04	3.739E-05
1.766	.980	3.759E-05	8.935E-05	6.823E-03	4.170E-04	3.952E-04	8.079E-06
1.927	.990	3.660E-05	2.751E-05	2.523E-03	4.432E-04	6.965E-04	1.436E-05
2.094	.990	1.191E-05	2.132E-06	5.655E-04	2.451E-04	3.993E-04	1.420E-05
2.263	1.000	1.935E-06	3.890E-06	1.384E-04	6.628E-05	1.062E-04	5.989E-06
2.448	1.050	2.796E-06	8.252E-06	7.331E-05	2.193E-05	2.118E-05	1.351E-06
2.634	1.100	2.412E-06	5.151E-06	2.676E-05	3.804E-05	1.938E-05	2.292E-06
2.827	1.150	1.843E-06	2.242E-06	1.562E-05	2.732E-05	8.940E-06	2.562E-06
3.025	1.200	1.795E-06	2.456E-06	1.871E-05	1.378E-05	6.764E-06	1.594E-06
3.231	1.250	1.328E-06	2.384E-06	4.018E-06	1.843E-05	7.095E-06	1.305E-06
3.442	1.300	1.141E-06	1.283E-06	2.749E-06	1.789E-05	1.086E-06	1.094E-06
3.685	1.400	2.691E-07	8.076E-07	1.931E-06	1.028E-05	5.997E-06	9.016E-07
4.845	1.500	3.281E-07	4.294E-07	1.350E-06	3.033E-06	4.959E-07	3.216E-07
5.906	1.800	7.460E-08	1.039E-07	1.933E-07	7.483E-07	1.042E-06	1.066E-07
7.074	2.000	2.731E-08	5.103E-08	3.602E-07	1.844E-07	6.285E-07	2.124E-08

PHASE (MOTION-HAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.251	.200	104.8	89.1	.1	111.2	-80.1	-146.1
.259	.250	98.0	90.8	-1	129.0	-77.1	-144.9
.414	.300	92.9	90.5	-2	135.7	-75.5	-156.8
.503	.350	89.8	91.0	-5	146.5	-72.6	-179.8
.603	.400	85.2	98.7	-9	179.8	-67.7	-178.2
.707	.450	82.7	98.0	-1.2	-97.6	-60.7	-151.9
.817	.500	80.4	89.9	.4	-71.0	-50.8	-170.0
.931	.550	79.3	86.5	8.0	-64.8	-36.9	174.5
1.056	.600	77.3	88.6	30.7	-61.7	-14.4	167.7
1.120	.625	76.4	93.0	50.0	-61.0	.1	165.1
1.186	.650	74.7	91.7	72.2	-61.0	15.0	162.2
1.253	.675	72.3	96.0	93.7	-61.9	28.8	158.7
1.321	.700	69.2	-169.1	111.8	-64.6	41.6	154.4
1.391	.725	64.8	-114.1	121.1	-71.1	54.6	150.2
1.463	.750	58.2	-110.7	79.5	-81.1	66.9	144.8
1.611	.800	-26.4	-112.0	-8	-121.8	100.8	124.9
1.766	.850	-101.8	-116.8	2.0	-175.5	-94.8	55.7
1.927	.900	-117.0	-127.6	-7	158.7	-79.9	-1.0
2.094	.950	-138.1	-170.7	-15.5	138.4	-73.5	-26.8
2.268	1.000	157.7	66.5	-56.8	105.9	-79.0	-54.8
2.448	1.050	85.5	37.4	-99.5	26.4	-126.5	-121.3
2.634	1.100	44.1	5.7	-137.3	-29.8	-179.8	162.3
2.827	1.150	-15.7	-53.3	152.6	-68.5	152.1	120.6
3.025	1.200	-56.4	-120.9	119.7	-129.9	78.4	69.4
3.231	1.250	-110.4	-158.6	83.5	165.7	58.5	10.9
3.442	1.300	-183.0	151.3	-4.8	122.1	54.1	-38.4
3.655	1.400	87.0	25.1	-10.9	1.6	-118.4	-166.6
3.845	1.500	-172.1	100.9	-23.8	125.0	125.9	-52.7
4.066	1.600	119.4	-173.0	-93.9	173.8	82.7	-5.1
4.304	1.700	-9.6	-141.7	-165.5	-132.3	42.3	16.5

REC = 61 HEADING = 180. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/VAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	5.717E-01 0.	9.831E-01 0.	9.453E-03 0.	1.287E-02 0.	5.453E-03 0.	1.287E-02 0.
.255	.250	4.933E-01 0.	9.609E-01 0.	2.583E-02 0.	4.623E-02 0.	1.504E-01 0.	2.583E-02 0.
.324	.300	4.294E-01 0.	8.671E-01 0.	7.637E-01 0.	1.071E-01 0.	1.543E-01 0.	4.623E-02 0.
.392	.350	3.671E-01 0.	7.637E-01 0.	6.202E-01 0.	1.360E-01 0.	1.590E-01 0.	7.437E-02 0.
.442	.400	3.026E-01 0.	2.362E-01 0.	4.526E-01 0.	1.543E-01 0.	1.590E-01 0.	1.071E-01 0.
.503	.450	2.362E-01 0.	1.709E-01 0.	2.983E-01 0.	1.543E-01 0.	1.590E-01 0.	1.360E-01 0.
.565	.510	1.709E-01 0.	1.156E-01 0.	1.797E-01 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.629	.550	1.156E-01 0.	6.730E-02 0.	1.350E-01 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.694	.600	6.730E-02 0.	4.410E-02 0.	1.011E-01 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.727	.625	4.410E-02 0.	2.891E-02 0.	7.704E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.751	.650	2.891E-02 0.	1.743E-02 0.	6.094E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.795	.675	1.743E-02 0.	9.383E-03 0.	5.047E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.829	.700	9.383E-03 0.	4.266E-03 0.	4.405E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.863	.725	4.266E-03 0.	2.554E-03 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.898	.750	2.554E-03 0.	1.454E-03 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
.968	.800	1.454E-03 0.	3.941E-04 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.040	.850	3.941E-04 0.	4.057E-04 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.112	.900	4.057E-04 0.	1.133E-04 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.187	.950	1.133E-04 0.	1.109E-05 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.262	1.000	1.109E-05 0.	6.156E-05 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.339	1.050	6.156E-05 0.	7.466E-05 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.417	1.100	7.466E-05 0.	1.361E-05 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.497	1.150	1.361E-05 0.	5.721E-06 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.578	1.200	5.721E-06 0.	1.312E-05 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.660	1.250	1.312E-05 0.	9.082E-06 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.743	1.300	9.082E-06 0.	1.998E-05 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
1.914	1.400	1.998E-05 0.	2.371E-06 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
2.271	1.600	2.371E-06 0.	3.596E-07 0.	4.561E-02 0.	1.543E-01 0.	1.590E-01 0.	1.543E-01 0.
2.649	1.800	3.596E-07 0.					
3.050	2.000						

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	103.9	0.0	0.0	.1	0.0	-89.8	0.0
.250	97.3	0.0	0.0	.1	0.0	-87.6	0.0
.300	92.5	0.0	0.0	-.1	0.0	-85.8	0.0
.350	88.6	0.0	0.0	-.3	0.0	-83.7	0.0
.400	85.1	0.0	0.0	-.5	0.0	-81.1	0.0
.450	81.8	0.0	0.0	-1.1	0.0	-77.7	0.0
.500	78.6	0.0	0.0	-2.8	0.0	-73.5	0.0
.550	75.7	0.0	0.0	-5.3	0.0	-68.6	0.0
.600	73.0	0.0	0.0	-13.4	0.0	-62.6	0.0
.625	71.6	0.0	0.0	-19.2	0.0	-59.1	0.0
.650	70.3	0.0	0.0	-26.8	0.0	-55.1	0.0
.675	69.0	0.0	0.0	-36.3	0.0	-50.7	0.0
.700	67.8	0.0	0.0	-47.3	0.0	-45.8	0.0
.725	66.6	0.0	0.0	-59.6	0.0	-40.3	0.0
.750	65.8	0.0	0.0	-72.9	0.0	-34.3	0.0
.800	64.2	0.0	0.0	-100.4	0.0	-19.4	0.0
.850	62.5	0.0	0.0	-113.1	0.0	178.8	0.0
.900	60.6	0.0	0.0	-103.9	0.0	-159.4	0.0
.950	58.5	0.0	0.0	-87.3	0.0	-140.1	0.0
1.000	56.2	0.0	0.0	-91.7	0.0	-122.9	0.0
1.050	54.0	0.0	0.0	162.6	0.0	-93.2	0.0
1.100	51.7	0.0	0.0	167.6	0.0	54.7	0.0
1.150	49.7	0.0	0.0	-172.1	0.0	77.7	0.0
1.200	47.8	0.0	0.0	-81.8	0.0	87.6	0.0
1.250	45.4	0.0	0.0	-42.7	0.0	35.5	0.0
1.300	43.3	0.0	0.0	-41.6	0.0	-61.3	0.0
1.350	41.4	0.0	0.0	-121.8	0.0	52.8	0.0
1.400	39.9	0.0	0.0	67.1	0.0	-79.2	0.0
1.450	38.7	0.0	0.0	-40.6	0.0	132.7	0.0
1.500	37.9	0.0	0.0	-163.2	0.0	103.3	0.0

REC = 62 HEADING = 180. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	4.696E-01 0.	9.838E-01 0.	9.699E-01 0.	5.704E-03 0.	1.312E-02 0.	2.615E-02 0.
.283	.250	3.877E-01 0.	9.461E-01 0.	9.615E-01 0.	4.721E-02 0.	7.701E-02 0.	1.119E-01 0.
.347	.300	3.239E-01 0.	8.909E-01 0.	5.202E-01 0.	1.461E-01 0.	1.776E-01 0.	1.966E-01 0.
.414	.350	2.564E-01 0.	7.952E-01 0.	3.145E-01 0.	2.781E-01 0.	1.873E-01 0.	1.682E-01 0.
.484	.400	2.116E-01 0.	6.611E-01 0.	2.425E-01 0.	2.021E-01 0.	1.431E-01 0.	1.111E-01 0.
.555	.450	1.595E-01 0.	5.202E-01 0.	1.548E-01 0.	1.068E-01 0.	7.753E-02 0.	4.428E-02 0.
.631	.500	1.116E-01 0.	4.052E-01 0.	5.878E-02 0.	3.908E-02 0.	4.033E-03 0.	1.690E-03 0.
.709	.550	7.533E-02 0.	3.657E-02 0.	3.908E-02 0.	7.191E-02 0.	6.873E-03 0.	6.022E-03 0.
.789	.600	3.957E-02 0.	2.648E-02 0.	2.425E-01 0.	4.199E-02 0.	2.159E-03 0.	2.613E-04 0.
.870	.625	1.701E-02 0.	1.002E-02 0.	1.548E-01 0.	7.833E-03 0.	1.155E-04 0.	1.893E-04 0.
.872	.650	1.002E-02 0.	5.218E-03 0.	1.068E-01 0.	7.833E-03 0.	3.589E-05 0.	1.360E-05 0.
.914	.675	5.218E-03 0.	2.206E-03 0.	5.878E-02 0.	5.724E-05 0.	5.617E-05 0.	1.539E-05 0.
.957	.700	2.206E-03 0.	6.611E-01 0.	3.145E-01 0.	7.870E-04 0.	7.756E-06 0.	4.762E-06 0.
1.001	.725	6.611E-01 0.	1.116E-01 0.	4.052E-01 0.	7.090E-04 0.	2.897E-06 0.	2.897E-06 0.
1.045	.750	6.611E-01 0.	1.116E-01 0.	4.052E-01 0.	7.090E-04 0.	2.897E-06 0.	2.897E-06 0.
1.136	.800	6.611E-01 0.	1.116E-01 0.	4.052E-01 0.	7.090E-04 0.	2.897E-06 0.	2.897E-06 0.
1.229	.850	2.076E-04 0.	1.096E-04 0.	1.096E-04 0.	1.096E-04 0.	1.096E-04 0.	1.096E-04 0.
1.325	.900	1.096E-04 0.	4.531E-05 0.	4.531E-05 0.	4.531E-05 0.	4.531E-05 0.	4.531E-05 0.
1.424	.950	4.531E-05 0.	3.026E-06 0.	3.026E-06 0.	3.026E-06 0.	3.026E-06 0.	3.026E-06 0.
1.525	1.000	3.026E-06 0.	4.613E-05 0.	4.613E-05 0.	4.613E-05 0.	4.613E-05 0.	4.613E-05 0.
1.629	1.050	4.613E-05 0.	3.266E-05 0.	3.266E-05 0.	3.266E-05 0.	3.266E-05 0.	3.266E-05 0.
1.735	1.100	3.266E-05 0.	5.495E-06 0.	5.495E-06 0.	5.495E-06 0.	5.495E-06 0.	5.495E-06 0.
1.844	1.150	5.495E-06 0.	1.119E-05 0.	1.119E-05 0.	1.119E-05 0.	1.119E-05 0.	1.119E-05 0.
1.955	1.200	1.119E-05 0.	9.355E-06 0.	9.355E-06 0.	9.355E-06 0.	9.355E-06 0.	9.355E-06 0.
2.070	1.250	9.355E-06 0.	2.039E-06 0.	2.039E-06 0.	2.039E-06 0.	2.039E-06 0.	2.039E-06 0.
2.197	1.300	2.039E-06 0.	6.445E-06 0.	6.445E-06 0.	6.445E-06 0.	6.445E-06 0.	6.445E-06 0.
2.429	1.400	6.445E-06 0.	8.827E-07 0.	8.827E-07 0.	8.827E-07 0.	8.827E-07 0.	8.827E-07 0.
2.944	1.600	8.827E-07 0.	1.010E-06 0.	1.010E-06 0.	1.010E-06 0.	1.010E-06 0.	1.010E-06 0.
3.501	1.800	1.010E-06 0.	2.805E-07 0.	2.805E-07 0.	2.805E-07 0.	2.805E-07 0.	2.805E-07 0.
4.102	2.000	2.805E-07 0.					

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.250	104.0	0.0	.2	0.0	-87.6	0.0
.283	.283	97.3	0.0	.0	0.0	-95.2	0.0
.347	.300	92.5	0.0	-.2	0.0	-83.3	0.0
.414	.350	88.5	0.0	-.4	0.0	-81.0	0.0
.484	.400	85.0	0.0	-.8	0.0	-77.8	0.0
.556	.450	81.7	0.0	-1.9	0.0	-73.5	0.0
.631	.500	78.8	0.0	-3.9	0.0	-68.2	0.0
.703	.550	76.2	0.0	-7.7	0.0	-61.5	0.0
.783	.600	73.7	0.0	-12.9	0.0	-52.8	0.0
.830	.625	72.5	0.0	-15.4	0.0	-47.4	0.0
.872	.651	71.4	0.0	-17.1	0.0	-41.4	0.0
.914	.675	70.3	0.0	-18.0	0.0	-34.6	0.0
.957	.700	69.4	0.0	-18.1	0.0	-26.7	0.0
1.001	.725	68.8	0.0	-17.9	0.0	-16.3	0.0
1.046	.750	68.1	0.0	-22.0	0.0	-4.4	0.0
1.136	.800	-121.6	0.0	-65.7	0.0	24.3	0.0
1.229	.850	-121.8	0.0	-64.6	0.0	-152.0	0.0
1.325	.900	-127.5	0.0	-45.7	0.0	-128.1	0.0
1.424	.950	-134.8	0.0	-23.8	0.0	-106.7	0.0
1.525	1.000	59.4	0.0	17.2	0.0	-85.0	0.0
1.623	1.050	39.8	0.0	177.2	0.0	-43.7	0.0
1.735	1.100	27.6	0.0	-165.9	0.0	79.4	0.0
1.844	1.150	-19.7	0.0	-170.8	0.0	113.8	0.0
1.955	1.200	-105.7	0.0	82.8	0.0	132.3	0.0
2.070	1.250	-135.9	0.0	73.6	0.0	-40.1	0.0
2.187	1.300	155.2	0.0	80.1	0.0	-29.3	0.0
2.429	1.400	45.5	0.0	-116.3	0.0	62.0	0.0
2.744	1.600	-151.0	0.0	43.3	0.0	-113.3	0.0
3.500	1.800	144.9	0.0	-31.4	0.0	132.9	0.0
4.102	2.000	122.7	0.0	-78.1	0.0	108.2	0.0

REC = 63 HEADING = 180. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.21	.200	3.89E-01 0.		9.852E-01 0.		5.94E-03 0.	
.29	.250	3.09E-01 0.		9.815E-01 0.		1.32E-02 0.	
.71	.300	2.49E-01 0.		9.663E-01 0.		2.62E-02 0.	
.46	.350	1.98E-01 0.		9.212E-01 0.		4.78E-02 0.	
.53	.400	1.52E-01 0.		8.387E-01 0.		7.89E-02 0.	
.69	.450	1.11E-01 0.		7.278E-01 0.		1.15E-01 0.	
.67	.500	7.61E-02 0.		6.552E-01 0.		1.59E-01 0.	
.78	.550	4.67E-02 0.		5.110E-01 0.		1.99E-01 0.	
.83	.600	2.47E-02 0.		5.889E-01 0.		2.16E-01 0.	
.93	.625	1.66E-02 0.		5.598E-01 0.		2.08E-01 0.	
.93	.650	1.32E-02 0.		5.168E-01 0.		1.89E-01 0.	
.675	.675	5.68E-03 0.		4.286E-01 0.		1.57E-01 0.	
1.034	.700	2.74E-03 0.		2.734E-01 0.		1.11E-01 0.	
1.139	.725	1.08E-03 0.		1.112E-01 0.		6.48E-02 0.	
1.193	.750	3.09E-04 0.		2.124E-02 0.		2.99E-02 0.	
1.324	.800	6.99E-06 0.		2.217E-02 0.		2.01E-03 0.	
1.413	.850	1.16E-04 0.		3.047E-02 0.		1.45E-03 0.	
1.533	.900	9.70E-05 0.		1.243E-02 0.		3.62E-03 0.	
1.660	.950	1.73E-05 0.		2.023E-03 0.		2.55E-03 0.	
1.787	1.000	1.96E-06 0.		1.356E-05 0.		5.95E-04 0.	
1.913	1.050	1.21E-05 0.		2.396E-04 0.		1.50E-05 0.	
2.053	1.100	6.67E-06 0.		1.328E-04 0.		7.42E-05 0.	
2.191	1.150	3.42E-06 0.		3.170E-05 0.		6.49E-05 0.	
2.334	1.200	6.29E-06 0.		5.311E-05 0.		6.47E-06 0.	
2.480	1.250	4.45E-06 0.		3.356E-05 0.		6.43E-06 0.	
2.631	1.300	7.83E-07 0.		2.703E-06 0.		1.90E-05 0.	
2.944	1.400	2.23E-06 0.		9.399E-06 0.		1.96E-06 0.	
3.616	1.500	1.99E-07 0.		2.453E-06 0.		1.29E-06 0.	
4.350	1.600	4.27E-07 0.		1.145E-06 0.		1.76E-06 0.	
5.151	2.000	1.00E-07 0.		6.245E-07 0.		1.36E-06 0.	

PHASE (MOTION-WAVEHT)

ME	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.231	.200	104.0	0.0	.2	0.0	-85.3	0.0
.293	.250	97.4	0.0	-.1	0.0	-82.7	0.0
.371	.300	92.5	0.0	-.3	0.0	-80.7	0.0
.446	.350	89.5	0.0	-.6	0.0	-78.1	0.0
.526	.400	84.9	0.0	-1.2	0.0	-74.2	0.0
.609	.450	81.7	0.0	-2.3	0.0	-69.0	0.0
.697	.500	79.2	0.0	-4.3	0.0	-62.3	0.0
.783	.550	76.8	0.0	-6.3	0.0	-53.2	0.0
.883	.600	74.6	0.0	-5.0	0.0	-40.9	0.0
.933	.625	73.6	0.0	-1.7	0.0	-33.4	0.0
.983	.650	72.9	0.0	4.7	0.0	-23.7	0.0
1.034	.675	72.2	0.0	15.2	0.0	-11.6	0.0
1.085	.700	71.1	0.0	23.9	0.0	2.1	0.0
1.139	.725	69.1	0.0	42.0	0.0	16.4	0.0
1.193	.750	66.0	0.0	41.4	0.0	30.3	0.0
1.204	.800	-104.9	0.0	-45.4	0.0	65.0	0.0
1.413	.850	-116.9	0.0	-26.4	0.0	-129.9	0.0
1.533	.900	-122.7	0.0	-3.0	0.0	-102.2	0.0
1.667	.950	-128.9	0.0	9.4	0.0	-84.0	0.0
1.787	1.000	77.1	0.0	-73.7	0.0	-74.5	0.0
1.913	1.050	49.4	0.0	-143.9	0.0	-107.2	0.0
2.053	1.100	20.7	0.0	-155.8	0.0	149.4	0.0
2.191	1.150	-53.3	0.0	149.1	0.0	146.9	0.0
2.334	1.200	-104.9	0.0	94.9	0.0	133.4	0.0
2.483	1.250	-133.0	0.0	74.3	0.0	-12.7	0.0
2.630	1.300	174.3	0.0	62.7	0.0	-37.5	0.0
2.844	1.400	37.8	0.0	-140.7	0.0	-79.7	0.0
3.616	1.600	-166.0	0.0	.3	0.0	-123.3	0.0
4.350	1.800	139.4	0.0	-41.9	0.0	122.7	0.0
5.151	2.000	127.5	0.0	-52.1	0.0	117.9	0.0

REC = 54 HEADING = 180. DEG SHIP SPEED = 20. KNOTS RAO (MOTION/HAVENT)**2

HE	M	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
2.2	200	3.857E-01	0.	9.879E-01	0.	6.179E-03	0.
3.16	250	2.494E-01	0.	9.963E-01	0.	1.311E-02	0.
3.95	300	1.947E-01	0.	9.919E-01	0.	2.607E-02	0.
4.73	350	1.505E-01	0.	9.598E-01	0.	4.812E-02	0.
5.63	400	1.129E-01	0.	8.961E-01	0.	7.991E-02	0.
6.63	450	8.371E-02	0.	8.533E-01	0.	1.209E-01	0.
7.63	500	5.364E-02	0.	9.713E-01	0.	1.707E-01	0.
8.68	550	3.208E-02	0.	9.549E-01	0.	2.157E-01	0.
9.73	600	1.822E-02	0.	1.037E+00	0.	2.310E-01	0.
1.035	625	6.103E-03	0.	1.030E+00	0.	2.182E-01	0.
1.094	650	3.260E-03	0.	8.495E-01	0.	1.805E-01	0.
1.153	675	1.550E-03	0.	5.115E-01	0.	1.257E-01	0.
1.215	700	6.173E-04	0.	2.022E-01	0.	7.371E-02	0.
1.277	725	1.833E-04	0.	4.421E-02	0.	3.686E-02	0.
1.341	750	1.833E-04	0.	1.842E-03	0.	1.446E-02	0.
1.409	800	9.393E-05	0.	1.502E-02	0.	3.353E-04	0.
1.472	850	7.335E-05	0.	1.343E-02	0.	1.130E-03	0.
1.533	900	5.323E-05	0.	4.402E-03	0.	1.626E-03	0.
1.593	950	1.672E-05	0.	6.121E-04	0.	7.925E-04	0.
2.030	1.000	1.756E-06	0.	1.100E-04	0.	1.553E-04	0.
2.208	1.050	4.721E-06	0.	1.142E-04	0.	2.243E-05	0.
2.371	1.100	2.471E-06	0.	4.213E-05	0.	4.482E-05	0.
2.539	1.150	2.365E-06	0.	1.573E-05	0.	2.427E-05	0.
2.712	1.200	4.203E-06	0.	2.173E-05	0.	3.445E-06	0.
2.891	1.250	2.167E-06	0.	1.067E-05	0.	3.614E-06	0.
3.074	1.300	8.157E-07	0.	7.147E-06	0.	1.115E-06	0.
3.259	1.400	1.834E-06	0.	1.611E-06	0.	2.822E-06	0.
4.283	1.600	2.736E-07	0.	2.401E-06	0.	1.259E-06	0.
5.201	1.800	2.403E-07	0.	9.092E-07	0.	7.606E-07	0.
6.003	2.000	2.553E-08	0.	1.209E-07	0.	5.417E-07	0.

PHASE (MOTION-HAVEHT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
2.72	200	14.1	0.0	.1	0.0	-82.9	0.0
2.72	250	97.4	0.0	-.1	0.0	-80.0	0.0
2.72	300	92.5	0.0	-.3	0.0	-78.1	0.0
2.72	350	89.4	0.0	-.5	0.0	-75.2	0.0
2.72	400	84.9	0.0	-1.3	0.0	-70.6	0.0
2.72	450	82.1	0.0	-2.2	0.0	-64.4	0.0
2.72	500	79.7	0.0	-3.0	0.0	-55.9	0.0
2.72	550	77.5	0.0	-5	0.0	-44.0	0.0
2.72	600	75.3	0.0	10.7	0.0	-27.1	0.0
2.72	625	75.3	0.0	22.9	0.0	-14.8	0.0
2.72	650	74.4	0.0	40.1	0.0	-.7	0.0
2.72	675	72.7	0.0	60.3	0.0	14.1	0.0
2.72	700	70.2	0.0	80.1	0.0	28.1	0.0
2.72	725	67.0	0.0	95.7	0.0	40.9	0.0
2.72	750	61.4	0.0	12.8	0.0	54.4	0.0
2.72	800	-84.0	0.0	-17.3	0.0	103.3	0.0
2.72	850	-111.6	0.0	-3.0	0.0	-106.6	0.0
2.72	900	-121.0	0.0	2.9	0.0	-87.0	0.0
2.72	950	-114.4	0.0	-9.9	0.0	-77.8	0.0
2.72	1000	115.9	0.0	-79.2	0.0	-82.1	0.0
2.72	1050	60.0	0.0	-120.5	0.0	-146.7	0.0
2.72	1100	17.2	0.0	-139.4	0.0	168.5	0.0
2.72	1150	-53.0	0.0	88.4	0.0	149.3	0.0
2.72	1200	-66.7	0.0	58.2	0.0	117.3	0.0
2.72	1250	-111.0	0.0	-3.8	0.0	30.7	0.0
2.72	1300	165.2	0.0	-167.3	0.0	-32.2	0.0
2.72	1350	49.2	0.0	5.6	0.0	-11.1	0.0
2.72	1400	-10.3	0.0	-12.4	0.0	-139.2	0.0
2.72	1450	12.7	0.0	-63.0	0.0	10.2	0.0
2.72	1500	109.5	0.0		0.0	100.7	0.0

REC = 65 HEADING = 180. DEG SHIP SPEED = 25. KNOTS
 RAO . (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.252	.200	2.745E-01	0.	9.943E-01	0.	6.286E-03	0.
.322	.250	2.036E-01	0.	1.015E+00	0.	1.280E-02	0.
.413	.300	1.545E-01	0.	1.021E+00	0.	2.556E-02	0.
.511	.350	1.155E-01	0.	1.006E+00	0.	4.781E-02	0.
.610	.400	8.543E-02	0.	9.721E-01	0.	7.995E-02	0.
.716	.450	5.977E-02	0.	1.027E+00	0.	1.240E-01	0.
.826	.500	3.885E-02	0.	1.182E+00	0.	1.759E-01	0.
.947	.550	2.463E-02	0.	1.422E+00	0.	2.218E-01	0.
1.072	.600	1.611E-02	0.	1.637E+00	0.	2.274E-01	0.
1.138	.625	9.883E-03	0.	1.337E+00	0.	1.301E-01	0.
1.204	.650	3.955E-03	0.	7.862E-01	0.	1.341E-01	0.
1.273	.675	2.236E-03	0.	3.226E-01	0.	8.134E-02	0.
1.343	.700	9.470E-04	0.	7.929E-02	0.	4.207E-02	0.
1.415	.725	3.574E-04	0.	7.637E-03	0.	1.767E-02	0.
1.483	.750	9.389E-05	0.	1.360E-03	0.	5.683E-03	0.
1.547	.800	9.598E-06	0.	9.539E-03	0.	4.982E-05	0.
1.607	.850	4.173E-05	0.	5.350E-03	0.	6.088E-04	0.
1.653	.900	3.408E-05	0.	1.792E-03	0.	6.918E-04	0.
2.134	.950	6.493E-06	0.	3.361E-04	0.	3.098E-04	0.
2.312	1.000	1.199E-06	0.	1.069E-04	0.	6.090E-05	0.
2.497	1.050	3.13E-06	0.	5.712E-05	0.	1.758E-05	0.
2.693	1.100	2.056E-06	0.	1.784E-05	0.	1.931E-05	0.
2.896	1.150	2.445E-06	0.	1.677E-05	0.	6.184E-06	0.
3.090	1.200	1.544E-06	0.	1.234E-05	0.	8.645E-06	0.
3.301	1.250	1.117E-06	0.	2.376E-06	0.	4.833E-06	0.
3.513	1.300	1.180E-06	0.	5.857E-06	0.	1.609E-09	0.
3.973	1.400	3.373E-07	0.	2.091E-08	0.	3.975E-06	0.
4.950	1.500	1.234E-07	0.	8.964E-07	0.	3.574E-07	0.
6.051	1.600	1.665E-07	0.	4.602E-07	0.	5.644E-07	0.
7.253	2.000	3.277E-08	0.	1.670E-07	0.	5.823E-07	0.

PHASE (MOTION-NAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.252	.200	104.1	0.0	.1	0.0	-80.1	0.0
.332	.250	97.4	0.0	-1	0.0	-77.1	0.0
.413	.300	92.5	0.0	-3	0.0	-75.4	0.0
.511	.350	88.4	0.0	-6	0.0	-72.3	0.0
.613	.400	85.0	0.0	-10	0.0	-67.1	0.0
.715	.450	82.5	0.0	-12	0.0	-59.3	0.0
.823	.500	81.2	0.0	.7	0.0	-49.3	0.0
.947	.550	78.2	0.0	9.4	0.0	-34.6	0.0
1.072	.600	77.3	0.0	35.3	0.0	-10.3	0.0
1.133	.625	76.3	0.0	56.1	0.0	4.7	0.0
1.204	.650	74.4	0.0	78.9	0.0	19.8	0.0
1.273	.675	71.9	0.0	100.2	0.0	33.5	0.0
1.343	.700	68.5	0.0	116.7	0.0	46.8	0.0
1.415	.725	63.7	0.0	119.4	0.0	60.0	0.0
1.483	.750	55.2	0.0	14.2	0.0	73.0	0.0
1.540	.800	-73.1	0.0	-4	0.0	151.6	0.0
1.593	.850	-108.2	0.0	2.0	0.0	-90.7	0.0
1.653	.900	-122.5	0.0	-2.6	0.0	-78.1	0.0
2.12	.950	-150.3	0.0	-23.4	0.0	-73.1	0.0
2.34	1.000	121.0	0.0	-73.2	0.0	-86.3	0.0
2.497	1.050	67.5	0.0	-113.3	0.0	-150.5	0.0
2.683	1.100	23.8	0.0	-155.7	0.0	167.1	0.0
2.836	1.150	-35.9	0.0	136.0	0.0	129.0	0.0
3.093	1.200	-73.1	0.0	108.1	0.0	67.9	0.0
3.301	1.250	-136.1	0.0	47.8	0.0	52.8	0.0
3.513	1.300	160.5	0.0	-17.8	0.0	111.8	0.0
3.973	1.400	47.4	0.0	-170.5	0.0	-112.1	0.0
4.903	1.600	-163.3	0.0	-12.7	0.0	-147.7	0.0
6.051	1.800	142.2	0.0	-32.5	0.0	119.0	0.0
7.233	2.000	91.5	0.0	-89.4	0.0	86.8	0.0

NO OF DATA

11911

DTNSRDC SHIP PERFORMANCE DEPARTMENT REPORT

SPD-738-01

DE 1078

RAO TABLES

0-180 @ 15 DEGREES
0-25 @ 5 KNOTS

DE 1078

NO. OF RECORDS = 55 NO. OF FREQS = 30

REC = 1 HEADING = 0. DEG SHIP SPEED = 5. KNOTS

RAO (MOTION/HAVEMT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	3.744E+00	8.119E-15	9.895E-01	4.097E-17	4.388E-03	4.060E-17
.234	.250	1.512E+00	7.997E-15	9.603E-01	1.140E-16	1.091E-02	9.185E-17
.276	.300	7.093E-01	7.733E-15	9.220E-01	2.840E-16	2.239E-02	1.852E-16
.318	.350	3.750E-01	8.467E-15	8.741E-01	7.211E-16	4.068E-02	4.506E-16
.359	.400	2.372E-01	8.106E-15	8.013E-01	1.713E-15	6.565E-02	7.830E-16
.397	.450	1.904E-01	7.038E-15	7.003E-01	3.737E-15	9.535E-02	1.150E-15
.434	.500	1.873E-01	5.630E-15	5.735E-01	7.445E-15	1.253E-01	1.507E-15
.471	.550	2.004E-01	4.162E-15	4.308E-01	1.350E-14	1.496E-01	1.783E-15
.503	.600	2.108E-01	2.954E-15	2.879E-01	2.224E-14	1.578E-01	1.901E-15
.522	.625	2.106E-01	2.304E-15	2.223E-01	2.753E-14	1.552E-01	1.830E-15
.539	.650	2.051E-01	1.835E-15	1.634E-01	3.330E-14	1.474E-01	1.800E-15
.555	.675	1.941E-01	1.447E-15	1.135E-01	3.949E-14	1.347E-01	1.652E-15
.571	.700	1.775E-01	1.129E-15	7.263E-02	4.625E-14	1.179E-01	1.471E-15
.587	.725	1.561E-01	8.679E-16	4.229E-02	5.447E-14	9.803E-02	1.242E-15
.602	.750	1.312E-01	6.449E-16	2.166E-02	6.685E-14	7.679E-02	9.940E-16
.632	.800	7.821E-02	2.742E-16	4.314E-03	1.500E-13	3.706E-02	5.046E-16
.660	.850	3.355E-02	1.123E-15	6.285E-03	9.179E-13	1.071E-02	1.825E-15
.687	.900	8.178E-03	7.525E-15	1.221E-02	2.476E-12	2.260E-03	4.285E-15
.713	.950	1.713E-03	1.794E-15	1.283E-02	4.631E-13	7.443E-03	4.874E-16
.737	1.000	4.547E-03	5.163E-16	7.582E-03	1.259E-13	1.449E-02	3.834E-17
.761	1.050	6.353E-03	1.819E-16	2.336E-03	3.101E-14	1.375E-02	3.571E-18
.782	1.100	4.020E-03	1.626E-16	1.563E-03	1.441E-14	6.221E-03	1.212E-17
.803	1.150	1.164E-03	1.740E-16	3.614E-03	1.896E-14	1.141E-03	8.443E-18
.822	1.200	9.602E-04	1.300E-16	3.985E-03	1.703E-14	3.442E-03	8.795E-18
.840	1.250	1.893E-03	8.426E-17	1.972E-03	8.383E-15	6.909E-03	1.702E-17
.855	1.300	1.498E-03	8.191E-17	8.223E-04	4.502E-15	4.860E-03	2.027E-17
.885	1.400	3.450E-04	7.761E-17	1.745E-03	6.865E-15	2.167E-03	1.310E-17
.928	1.500	2.993E-04	3.659E-17	6.841E-04	2.207E-15	2.520E-03	1.443E-17
.949	1.600	6.331E-05	1.531E-17	3.075E-04	2.978E-16	1.038E-03	1.282E-17
.950	2.000	2.128E-04	4.185E-18	2.994E-04	3.944E-16	7.247E-04	7.541E-18

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	-16.0	-90.7	.2	-105.5	91.0	-171.7
.234	.234	-24.5	-90.6	.2	-111.0	89.0	-170.4
.276	.300	-35.8	-90.7	.3	-116.9	87.3	-169.2
.318	.350	-50.8	-89.3	.2	-123.9	85.0	-171.0
.358	.400	-69.7	-89.4	.1	-128.5	82.8	-168.7
.397	.450	-89.9	-90.3	.3	-130.9	80.5	-165.2
.434	.500	-107.6	-92.2	.6	-131.2	77.9	-161.1
.471	.550	-121.0	-95.2	1.3	-129.4	74.9	-156.5
.505	.600	-130.4	-99.8	2.4	-125.3	71.3	-151.2
.522	.625	-133.8	-102.9	3.4	-122.2	69.3	-148.2
.539	.650	-136.7	-106.3	4.7	-118.0	67.1	-144.6
.555	.675	-138.9	-110.0	6.5	-112.5	64.6	-140.4
.571	.700	-140.7	-113.6	9.2	-105.3	61.9	-135.3
.587	.725	-142.0	-116.3	13.5	-95.7	58.7	-128.6
.602	.750	-142.8	-116.9	20.9	-83.1	55.1	-119.2
.632	.800	-142.7	-94.9	63.4	-46.7	45.1	-80.7
.650	.850	-138.6	14.3	129.1	9.3	25.8	7.6
.667	.900	-123.8	132.5	149.8	127.7	-43.4	135.4
.713	.950	-56.8	178.3	159.8	178.8	-108.8	-178.0
.737	1.000	-2.0	-153.3	171.2	-154.7	-129.5	-169.0
.751	1.050	14.3	-107.7	-160.6	-119.3	-144.3	94.0
.782	1.100	28.6	-55.7	-89.6	-57.6	-163.5	83.0
.803	1.150	61.9	-22.4	-52.4	-13.2	136.5	118.2
.822	1.200	136.5	9.7	-34.2	13.3	53.4	-177.0
.843	1.250	170.3	53.4	-9.7	45.2	28.7	-131.3
.855	1.300	-170.6	103.1	51.4	104.3	8.2	-96.9
.885	1.400	-54.0	-176.8	134.8	-176.1	-138.2	-2.8
.928	1.500	143.8	28.3	-27.1	22.5	11.9	-167.2
.949	1.600	-11.0	-115.3	-115.5	-77.9	147.0	70.4
.953	2.000	-78.6	139.1	111.4	158.3	-178.9	-33.2

REC = 2

HEADING = 0. DEG
RAO (MOTION/WAVEVENT)**2

SHIP SPEED = 10. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	4.705E+00	9.203E-15	9.742E-01	4.104E-17	3.626E-03	3.947E-17
.217	.250	2.026E+00	9.400E-15	9.488E-01	1.129E-16	9.391E-03	9.321E-17
.253	.300	1.017E+00	9.508E-15	9.080E-01	2.746E-16	1.966E-02	2.071E-16
.286	.350	5.834E-01	9.474E-15	8.465E-01	6.210E-16	3.533E-02	4.311E-16
.316	.400	3.949E-01	9.634E-15	7.694E-01	1.378E-15	5.712E-02	9.176E-16
.344	.450	3.371E-01	8.837E-15	6.661E-01	2.778E-15	8.237E-02	1.520E-15
.369	.500	3.526E-01	7.404E-15	5.408E-01	4.980E-15	1.068E-01	2.174E-15
.391	.550	4.047E-01	5.659E-15	4.033E-01	7.816E-15	1.246E-01	2.763E-15
.411	.600	4.609E-01	3.929E-15	2.685E-01	1.034E-14	1.297E-01	3.121E-15
.423	.625	4.805E-01	3.162E-15	2.071E-01	1.148E-14	1.262E-01	3.159E-15
.428	.650	4.896E-01	2.497E-15	1.524E-01	1.192E-14	1.186E-01	3.083E-15
.436	.675	4.853E-01	1.951E-15	1.058E-01	1.175E-14	1.073E-01	2.886E-15
.443	.700	4.659E-01	1.529E-15	6.821E-02	1.098E-14	9.279E-02	2.575E-15
.449	.725	4.310E-01	1.224E-15	3.986E-02	9.756E-15	7.631E-02	2.170E-15
.455	.750	3.820E-01	1.016E-15	2.040E-02	8.375E-15	5.910E-02	1.708E-15
.464	.800	2.551E-01	7.823E-16	3.438E-03	6.800E-15	2.780E-02	7.951E-16
.471	.850	1.252E-01	6.025E-16	4.252E-03	9.400E-15	7.800E-03	2.209E-16
.475	.900	3.602E-02	3.561E-16	8.751E-03	1.528E-14	1.667E-03	1.817E-16
.476	.950	7.791E-03	1.107E-16	9.743E-03	1.831E-14	4.514E-03	5.039E-16
.475	1.000	2.228E-02	2.537E-17	4.453E-03	1.533E-14	7.997E-03	7.509E-16
.471	1.050	3.832E-02	1.313E-16	7.375E-04	7.410E-15	7.006E-03	6.724E-16
.465	1.100	3.061E-02	2.440E-16	5.614E-04	3.597E-15	3.020E-03	4.555E-16
.456	1.150	1.205E-02	1.852E-16	2.072E-03	6.332E-15	6.489E-04	4.664E-16
.444	1.200	9.873E-03	7.254E-17	2.061E-03	8.680E-15	1.407E-03	6.938E-16
.433	1.250	2.305E-02	1.661E-16	5.920E-04	5.503E-15	2.444E-03	7.507E-16
.413	1.300	2.496E-02	3.675E-16	5.652E-05	2.011E-15	1.573E-03	5.598E-16
.371	1.400	9.758E-03	2.037E-16	7.221E-04	4.293E-15	5.171E-04	8.276E-16
.256	1.500	4.142E-02	8.158E-16	1.312E-04	8.135E-16	3.357E-04	1.164E-15
.099	1.600	9.087E-01	7.457E-14	7.560E-05	7.205E-17	1.845E-04	4.589E-15
.100	2.000	4.977E-01	3.574E-15	9.198E-05	2.714E-16	3.293E-05	5.603E-15

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	-15.9	-91.7	.3	-111.6	88.1	-163.2
.217	.250	-24.3	-91.6	.4	-116.4	87.0	-163.7
.251	.300	-35.5	-91.8	.5	-121.7	85.6	-164.5
.286	.350	-50.2	-91.9	.5	-127.1	84.0	-164.6
.316	.400	-64.6	-91.9	.4	-132.0	81.6	-164.8
.344	.450	-88.5	-93.1	.4	-134.7	79.1	-162.9
.369	.500	-106.1	-95.5	.4	-135.5	76.2	-160.1
.391	.550	-119.6	-99.5	.6	-134.4	72.9	-156.8
.411	.600	-123.1	-105.8	1.0	-131.4	68.9	-153.1
.420	.625	-123.6	-110.3	1.5	-129.0	66.6	-150.9
.429	.650	-135.5	-115.8	2.2	-125.7	64.1	-148.6
.436	.675	-137.8	-122.7	3.3	-121.4	61.4	-146.0
.443	.700	-139.6	-131.0	5.2	-115.5	58.3	-143.1
.449	.725	-140.9	-140.6	8.2	-107.6	54.8	-139.6
.455	.750	-141.6	-151.0	13.9	-96.8	50.8	-135.4
.464	.800	-141.5	-170.8	51.1	-64.2	40.1	-122.4
.471	.850	-137.8	175.0	123.4	-27.9	19.7	-89.5
.475	.900	-124.1	168.6	142.7	-3.3	-47.6	-13.5
.476	.950	-61.6	175.6	148.6	13.3	-113.6	24.4
.475	1.000	-2.2	-110.8	153.4	29.2	-136.6	44.7
.471	1.050	15.4	-58.9	173.2	54.2	-153.7	66.8
.465	1.100	30.1	-45.8	-80.7	109.6	-176.0	102.2
.456	1.150	61.2	-30.0	-61.3	161.3	124.1	151.1
.444	1.200	130.8	17.8	-58.5	-173.7	45.0	-170.7
.430	1.250	169.1	86.9	-54.2	-150.2	16.0	-140.0
.413	1.300	-159.4	114.4	68.6	-100.1	-7.9	-101.0
.371	1.400	-61.6	-161.0	95.1	-8.1	-148.5	-3.9
.256	1.500	140.8	61.8	-110.5	173.8	3.5	176.8
.099	1.800	-19.9	-104.4	-75.8	-92.9	166.1	3.7
.100	2.000	-70.7	-159.1	44.9	-60.1	-133.1	-51.8

REC = 3	HEADING =	0. DEG	SHIP SPEED = 15. KNOTS				
	PAO	(MOTION/WAVEHT)*2					
WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
168	200	5.936E+00	1.092E-14	9.665E-01	4.439E-17	2.893E-03	2.840E-17
201	250	2.777E+00	1.184E-14	9.396E-01	2.213E-16	7.954E-03	8.074E-17
223	300	1.513E+00	1.236E-14	8.938E-01	1.904E-16	1.692E-02	1.851E-16
254	350	9.894E-01	1.267E-14	8.287E-01	6.302E-16	3.067E-02	4.027E-16
274	400	7.116E-01	1.240E-14	7.381E-01	1.242E-15	4.854E-02	7.588E-15
291	450	6.665E-01	1.180E-14	6.299E-01	2.307E-15	6.956E-02	1.494E-15
303	500	7.611E-01	1.060E-14	5.044E-01	3.839E-15	8.959E-02	2.530E-15
312	550	9.704E-01	8.663E-15	3.700E-01	5.528E-15	1.033E-01	3.693E-15
315	600	1.218E+00	6.548E-15	2.412E-01	6.749E-15	1.060E-01	4.743E-15
317	625	1.339E+00	5.600E-15	1.838E-01	6.949E-15	1.024E-01	5.119E-15
317	650	1.537E+00	4.818E-15	1.332E-01	6.732E-15	9.545E-02	5.334E-15
316	675	1.652E+00	4.255E-15	9.086E-02	6.234E-15	8.957E-02	5.347E-15
314	700	1.731E+00	3.937E-15	5.728E-02	5.351E-15	7.343E-02	5.132E-15
311	725	1.760E+00	3.856E-15	3.254E-02	4.248E-15	5.992E-02	4.683E-15
307	750	1.727E+00	3.962E-15	1.606E-02	3.032E-15	4.611E-02	4.024E-15
296	800	1.456E+00	4.343E-15	2.644E-03	1.336E-15	2.161E-02	2.325E-15
281	850	9.483E-01	4.152E-15	3.770E-03	1.045E-15	6.252E-03	7.631E-16
262	900	3.924E-01	2.983E-15	6.900E-03	2.118E-15	1.174E-03	5.291E-18
239	950	1.131E-01	8.401E-16	6.031E-03	3.032E-15	2.563E-03	5.989E-18
212	1000	4.652E-01	3.545E-16	2.422E-03	2.649E-15	4.812E-03	2.123E-15
182	1050	1.537E+00	5.877E-15	1.856E-04	1.132E-15	4.580E-03	3.070E-15
147	1100	3.193E+00	1.875E-14	7.638E-04	1.116E-16	2.389E-03	4.073E-15
108	1150	4.662E+00	2.898E-14	1.910E-03	5.263E-16	6.287E-04	5.200E-16
066	1200	1.617E+01	1.991E-14	1.443E-03	1.354E-15	5.000E-04	2.953E-15
019	1250	4.678E+02	2.832E-12	1.681E-04	9.891E-16	1.293E-03	1.148E-14
031	1300	8.435E+02	6.604E-12	3.422E-04	1.036E-16	1.735E-03	3.010E-14
144	1400	3.971E-01	6.415E-15	5.550E-04	1.036E-15	2.087E-04	3.120E-15
416	1600	6.265E-03	2.424E-16	2.114E-04	3.243E-15	4.797E-04	4.880E-16
752	1800	1.022E-04	4.075E-17	8.568E-05	1.842E-15	1.140E-04	1.097E-17
1150	2000	9.446E-05	1.212E-16	4.049E-04	6.630E-17	8.184E-04	4.008E-18

PHASE (MOTION-WAVEVENT)

WE	N	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.168	.200	-15.8	-93.1	.5	-118.9	84.3	-147.5
.201	.250	-24.2	-92.9	.5	-123.3	83.7	-153.9
.229	.300	-35.3	-93.2	.6	-128.0	83.4	-155.5
.254	.350	-49.7	-93.9	.6	-132.5	82.1	-157.0
.274	.400	-67.3	-95.2	.6	-136.2	80.6	-157.0
.291	.450	-86.5	-97.0	.5	-139.2	78.1	-157.1
.303	.500	-103.8	-100.5	.4	-140.8	75.1	-156.1
.312	.550	-117.2	-106.3	.3	-140.9	71.6	-154.3
.316	.600	-126.7	-115.7	.4	-139.5	67.7	-152.1
.317	.625	-130.2	-122.3	.7	-138.2	65.4	-150.9
.317	.650	-133.1	-130.4	1.3	-136.4	63.0	-149.6
.316	.675	-135.3	-140.1	2.3	-133.9	60.4	-148.3
.314	.700	-137.0	-150.8	4.0	-130.4	57.5	-147.0
.311	.725	-138.2	-161.7	7.2	-125.6	54.2	-145.7
.307	.750	-138.9	-172.0	13.2	-118.6	50.6	-144.4
.296	.800	-138.5	-171.4	54.6	-91.0	40.9	-142.2
.281	.850	-134.6	-159.8	123.0	-40.8	22.9	-141.7
.262	.900	-121.7	-154.3	139.4	-8.2	-35.5	-134.7
.233	.950	-64.5	-66.8	143.8	6.0	-106.4	43.7
.212	1.000	1.3	-66.8	148.0	14.8	-128.9	48.3
.182	1.050	20.9	-47.7	-176.7	25.5	-142.7	54.9
.147	1.100	35.8	-44.2	-71.6	74.9	-157.8	68.4
.108	1.150	61.6	-39.9	-66.5	173.6	168.7	124.2
.066	1.200	125.4	-10.0	-72.0	-173.0	90.4	-157.4
.019	1.250	175.9	73.3	-115.9	-164.6	67.3	-154.2
.031	1.300	-162.6	105.7	105.3	-139.0	34.4	-153.0
.144	1.400	-67.4	-136.5	86.3	-9.6	-110.9	-5.8
.416	1.600	140.3	65.6	-93.4	-177.9	-7.0	-172.9
.752	1.800	-9.8	-111.9	-118.2	-110.6	129.6	61.8
1.151	2.000	-79.5	153.4	-162.3	161.9	-154.4	-23.9

REC = 4 HEADING = 0. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/VAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.150	.200	7.747E+00	1.396E-14	9.627E-01	5.086E-17	2.279E-03	2.199E-17
.184	.250	3.910E+00	1.608E-14	9.326E-01	1.393E-16	6.585E-03	5.755E-17
.206	.300	2.347E+00	1.817E-14	8.848E-01	3.342E-16	1.440E-02	1.420E-16
.221	.350	1.649E+00	2.013E-14	8.142E-01	7.130E-16	2.612E-02	3.147E-15
.232	.400	1.400E+00	2.185E-14	7.328E-01	1.380E-15	4.173E-02	6.774E-16
.237	.450	1.504E+00	2.301E-14	6.092E-01	2.399E-15	5.922E-02	1.310E-15
.238	.500	2.011E+00	2.339E-14	4.795E-01	3.717E-15	7.536E-02	2.305E-15
.232	.550	3.081E+00	2.296E-14	3.449E-01	5.070E-15	8.615E-02	3.705E-15
.222	.600	4.997E+00	2.214E-14	2.192E-01	5.980E-15	8.800E-02	5.411E-15
.215	.650	6.415E+00	2.106E-14	1.950E-01	6.156E-15	8.522E-02	6.412E-15
.206	.650	8.250E+00	2.205E-14	1.179E-01	6.051E-15	7.982E-02	7.386E-15
.197	.675	1.062E+01	2.309E-14	7.895E-02	5.639E-15	7.211E-02	8.235E-15
.185	.700	1.371E+01	2.546E-14	4.864E-02	4.932E-15	6.264E-02	8.834E-15
.173	.725	1.777E+01	2.969E-14	2.693E-02	3.983E-15	5.211E-02	9.048E-15
.159	.750	2.324E+01	3.715E-14	1.327E-02	2.953E-15	4.134E-02	9.000E-15
.128	.800	4.210E+01	7.073E-14	3.857E-03	1.037E-15	2.182E-02	7.689E-15
.092	.850	9.208E+01	1.897E-13	6.746E-03	7.627E-17	8.425E-03	5.497E-15
.050	.900	3.960E+02	1.614E-12	9.557E-03	4.035E-16	2.384E-03	8.156E-15
.014	.950	1.327E+04	2.462E-10	5.341E-03	1.165E-15	1.970E-03	1.157E-13
.107	1.000	1.388E+02	1.877E-13	1.367E-03	1.943E-15	3.878E-03	2.467E-15
.170	1.050	1.309E+01	3.065E-14	1.801E-04	1.125E-15	4.682E-03	3.534E-15
.170	1.100	1.761E+00	1.124E-14	9.284E-04	1.702E-16	2.248E-03	1.039E-15
.234	1.150	1.765E-01	1.651E-15	1.770E-03	9.902E-16	3.425E-04	3.971E-16
.312	1.200	3.743E-02	3.715E-16	1.565E-03	3.570E-15	6.847E-04	8.447E-16
.390	1.250	3.303E-02	5.318E-16	5.193E-04	4.885E-15	1.758E-03	7.762E-16
.474	1.300	1.438E-02	3.006E-16	1.823E-04	4.473E-15	1.322E-03	3.966E-16
.654	1.400	1.069E-03	1.656E-15	9.740E-04	7.517E-13	7.529E-04	2.041E-15
1.087	1.600	1.538E-04	1.696E-17	2.320E-03	6.663E-16	2.103E-03	1.013E-17
1.602	1.800	9.583E-06	1.202E-18	8.876E-04	5.298E-18	2.370E-04	1.564E-18
2.199	2.000	8.108E-06	7.308E-20	2.354E-06	1.619E-18	4.030E-05	2.163E-19

PHASE (MOTION-WAVEENT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.158	.200	-15.8	-94.6	.5	-125.5	76.4	-127.4
.184	.250	-24.1	-94.4	.5	-129.5	78.8	-135.0
.206	.300	-35.0	-94.8	.5	-133.9	79.5	-139.7
.221	.350	-49.1	-95.6	.5	-137.9	79.5	-142.1
.232	.400	-66.3	-97.2	.4	-141.4	78.0	-144.5
.237	.450	-84.8	-99.8	.3	-144.1	76.1	-145.4
.238	.500	-101.3	-103.9	.1	-145.0	73.6	-145.4
.232	.550	-114.1	-110.1	.1	-147.1	70.8	-144.9
.222	.600	-123.1	-119.4	.4	-147.6	67.5	-144.0
.215	.625	-126.5	-125.8	.8	-147.6	65.6	-143.5
.206	.650	-129.1	-133.6	1.7	-147.4	63.5	-143.0
.197	.675	-131.1	-142.4	3.2	-147.1	61.5	-142.5
.186	.700	-132.5	-152.0	5.9	-146.5	59.4	-142.1
.173	.725	-133.2	-161.6	11.0	-145.6	57.3	-141.8
.159	.750	-133.5	-171.4	20.5	-144.2	54.9	-141.7
.128	.800	-132.2	-170.7	71.0	-138.0	49.1	-142.6
.092	.850	-127.5	-154.4	115.9	-95.4	40.3	-148.2
.050	.900	-115.0	-137.9	124.9	12.8	18.6	-157.4
.014	.950	-73.2	-127.9	120.2	19.4	-39.2	-149.7
.051	1.000	3.0	-101.7	138.6	18.9	-106.2	113.6
.107	1.050	22.9	-45.3	-142.9	23.7	-130.8	58.9
.170	1.100	35.4	-42.8	-78.5	76.7	-152.2	74.6
.238	1.150	61.3	-22.6	-66.9	161.9	157.1	146.2
.312	1.200	129.2	54.0	-59.7	-178.3	51.6	-166.3
.390	1.250	169.3	105.9	-43.3	-153.3	20.9	-136.2
.474	1.300	-169.9	133.0	37.7	-99.5	-1.0	-96.0
.653	1.400	-58.2	19.7	124.3	34.8	-145.4	37.1
1.087	1.600	145.2	41.2	33.4	25.2	29.9	-157.1
1.602	1.800	-6.5	-114.1	-9.5	-35.2	-140.5	94.4
2.199	2.000	-105.9	131.4	-160.9	102.9	-98.9	-31.9

REC = 5		HEADING =		0. DEG		SHIP SPEED = 25. KNOTS		RAO (MOTION/WAVEVENT)**2	
WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW		
.148	.200	1.019E+01	1.877E-14	9.647E-01	5.998E-17	1.906E-03	2.114E-17		
.168	.250	5.694E+00	2.394E-14	9.296E-01	1.648E-16	5.349E-03	4.600E-17		
.182	.300	3.849E+00	3.073E-14	8.818E-01	3.973E-16	1.209E-02	1.093E-16		
.189	.350	3.122E+00	3.989E-14	8.109E-01	8.509E-16	2.223E-02	2.463E-16		
.190	.400	3.163E+00	5.299E-14	7.164E-01	1.635E-15	3.533E-02	5.209E-16		
.184	.450	4.219E+00	7.334E-14	5.999E-01	2.824E-15	4.977E-02	1.023E-15		
.172	.500	7.427E+00	1.094E-13	4.669E-01	4.339E-15	6.268E-02	1.833E-15		
.153	.550	1.650E+01	1.851E-13	3.328E-01	6.033E-15	7.158E-02	3.214E-15		
.128	.600	4.519E+01	3.940E-13	2.077E-01	7.346E-15	7.332E-02	5.401E-15		
.112	.625	8.690E+01	6.592E-13	1.517E-01	7.453E-15	7.163E-02	6.870E-15		
.096	.650	1.827E+02	1.277E-12	1.073E-01	7.658E-15	6.701E-02	1.045E-14		
.077	.675	4.622E+02	3.058E-12	7.009E-02	7.375E-15	6.089E-02	1.791E-14		
.057	.700	1.630E+03	9.937E-12	4.069E-02	6.063E-15	5.873E-02	3.534E-14		
.035	.725	1.099E+04	7.232E-11	2.198E-02	5.660E-15	4.057E-02	1.264E-13		
.014	.750	4.472E+05	2.392E-09	1.648E-02	3.421E-15	5.491E-02	7.631E-13		
.040	.800	4.778E+03	9.879E-12	1.10E-02	1.558E-15	2.935E-02	2.208E-14		
.093	.850	6.921E+01	1.318E-13	8.515E-03	9.228E-17	9.568E-03	2.305E-15		
.163	.900	2.835E+00	1.478E-14	7.323E-03	1.074E-15	1.122E-03	1.608E-16		
.234	.950	1.230E+01	5.080E-16	5.230E-03	3.433E-15	1.637E-03	4.043E-16		
.312	1.000	1.059E-01	4.065E-16	2.917E-03	5.635E-15	4.323E-03	9.390E-16		
.397	1.050	7.387E-02	7.438E-16	1.292E-03	5.497E-15	4.694E-03	7.322E-16		
.483	1.100	2.521E-02	3.280E-16	1.037E-03	6.143E-15	2.168E-03	3.640E-16		
.585	1.150	4.347E-03	2.753E-17	1.849E-03	4.560E-14	3.974E-04	4.115E-16		
.690	1.200	1.842E-03	2.373E-15	2.523E-03	7.191E-13	1.410E-03	8.278E-16		
.801	1.250	2.182E-03	1.077E-16	3.123E-03	1.547E-14	3.350E-03	9.742E-18		
.918	1.300	1.111E-03	6.318E-17	3.194E-03	2.778E-15	2.523E-03	1.931E-17		
1.172	1.400	1.082E-04	1.742E-17	1.737E-03	8.652E-16	1.933E-03	9.850E-18		
1.759	1.600	1.773E-05	1.632E-18	1.786E-04	2.587E-17	4.263E-04	1.386E-18		
2.453	1.800	4.406E-06	3.514E-19	3.755E-05	3.132E-19	1.689E-05	2.093E-19		
3.249	2.000	6.094E-06	3.964E-22	5.142E-04	2.403E-18	8.968E-04	1.610E-19		

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.148	.200	-15.7	-96.3	.4	-130.5	62.7	-102.3
.158	.250	-23.9	-95.8	.4	-133.4	71.6	-99.6
.182	.300	-34.7	-96.3	.4	-137.8	73.4	-109.0
.189	.350	-48.5	-97.3	.2	-141.5	74.0	-113.3
.190	.400	-65.3	-98.9	.0	-144.6	73.5	-114.9
.184	.450	-83.0	-101.1	-.2	-146.9	72.3	-114.1
.172	.500	-98.7	-103.9	-.3	-148.5	70.9	-110.2
.153	.550	-110.8	-107.4	-.4	-149.7	68.4	-104.1
.123	.600	-119.0	-110.5	.4	-150.3	66.3	-92.1
.112	.625	-121.6	-110.8	1.8	-150.2	66.6	-81.3
.095	.650	-124.0	-112.0	3.0	-150.3	64.3	-71.4
.077	.675	-125.5	-112.2	5.8	-150.0	62.9	-58.6
.057	.700	-125.8	-110.1	14.2	-149.9	66.4	-42.1
.035	.725	-126.6	-111.2	19.9	-148.4	60.3	-33.1
.014	.750	-125.6	-108.9	57.0	-150.0	72.2	-22.4
.000	.800	-128.0	-135.5	84.7	-149.5	60.4	-51.2
.098	.850	-127.7	158.7	109.7	-93.8	46.9	-141.3
.163	.900	-118.5	139.4	129.0	-2.7	4.1	168.0
.234	.950	-64.6	152.3	144.0	7.5	-97.6	54.7
.312	1.000	-.3	159.7	161.4	21.0	-127.1	54.7
.397	1.050	16.3	-39.5	-165.4	48.5	-143.8	73.1
.488	1.100	30.0	-20.1	-104.7	106.7	-162.6	108.9
.585	1.150	61.1	74.3	-60.9	164.7	135.5	162.7
.693	1.200	133.3	-48.7	-28.6	-39.7	53.1	-38.8
.801	1.250	169.5	53.8	9.3	35.0	32.4	-114.8
.918	1.300	-169.9	113.9	51.0	102.3	18.7	-86.2
1.172	1.400	-52.9	-161.6	-131.3	-170.6	-110.1	12.8
1.759	1.500	136.4	43.2	-178.4	20.2	93.4	-149.4
2.453	1.600	7.6	-135.0	41.1	-139.0	-50.4	90.0
3.249	2.000	134.6	90.0	-111.4	133.8	83.5	-39.6

REC = 6 HEADING = 15. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	3.720E+00	7.262E-02	9.834E-01	3.667E-04	4.077E-03	3.411E-04
.234	.250	1.500E+00	7.159E-02	9.626E-01	1.017E-03	1.016E-02	7.685E-04
.277	.300	7.021E-01	6.928E-02	9.265E-01	2.222E-03	2.091E-02	1.544E-03
.319	.350	3.682E-01	7.643E-02	8.825E-01	6.372E-03	3.820E-02	3.793E-03
.359	.400	2.285E-01	7.356E-02	8.145E-01	1.510E-02	6.200E-02	6.586E-03
.399	.450	1.782E-01	6.446E-02	7.190E-01	3.309E-02	9.077E-02	9.701E-03
.437	.500	1.713E-01	5.231E-02	5.976E-01	6.663E-02	1.206E-01	1.279E-02
.473	.550	1.821E-01	3.951E-02	4.586E-01	1.231E-01	1.482E-01	1.530E-02
.509	.600	1.928E-01	2.790E-02	3.162E-01	2.086E-01	1.574E-01	1.658E-02
.526	.625	1.943E-01	2.292E-02	2.492E-01	2.529E-01	1.569E-01	1.658E-02
.553	.650	1.908E-01	1.859E-02	1.881E-01	3.247E-01	1.514E-01	1.608E-02
.559	.675	1.828E-01	1.491E-02	1.347E-01	3.038E-01	1.410E-01	1.505E-02
.575	.700	1.697E-01	1.179E-02	9.029E-02	4.717E-01	1.262E-01	1.352E-02
.592	.725	1.521E-01	9.103E-03	5.565E-02	5.648E-01	1.079E-01	1.154E-02
.607	.750	1.309E-01	6.662E-03	3.076E-02	6.925E-01	8.763E-02	9.217E-03
.634	.800	8.326E-02	1.963E-03	6.399E-03	1.289E+00	4.712E-02	4.133E-03
.667	.850	3.983E-02	4.350E-03	4.746E-03	3.395E+00	1.675E-02	3.324E-03
.695	.900	1.190E-02	1.489E-02	1.092E-02	3.788E+00	3.084E-03	5.335E-03
.721	.950	1.793E-03	9.511E-03	1.374E-02	1.945E+00	5.162E-03	1.933E-03
.745	1.000	2.909E-03	3.914E-03	1.002E-02	8.187E-01	1.311E-02	3.735E-04
.770	1.050	5.542E-03	1.392E-03	4.050E-03	2.607E-01	1.563E-02	1.197E-04
.793	1.100	4.603E-03	1.077E-03	1.436E-03	8.980E-02	9.604E-03	1.283E-04
.815	1.150	1.750E-03	1.320E-03	2.848E-03	1.059E-01	2.327E-03	8.580E-05
.835	1.200	5.957E-04	1.141E-03	4.251E-03	1.230E-01	1.913E-03	8.177E-05
.854	1.250	1.346E-03	7.299E-04	3.009E-03	7.895E-02	6.214E-03	1.500E-04
.871	1.300	1.607E-03	6.041E-04	1.163E-03	3.412E-02	6.587E-03	1.889E-04
.907	1.400	1.965E-04	6.706E-04	1.817E-03	5.176E-02	1.047E-03	1.268E-04
.951	1.600	1.872E-04	2.795E-04	8.559E-04	2.046E-02	1.630E-03	1.435E-04
.978	1.800	1.791E-04	1.519E-04	2.199E-04	2.795E-03	1.904E-03	9.665E-05
.986	2.000	1.291E-05	8.899E-05	2.534E-04	3.154E-03	2.850E-04	5.778E-05

PHASE (MOTION-WAVEVENT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.190	.200	-15.6	89.4	.2	75.2	91.1	8.2
.234	.250	-23.8	89.4	.2	70.0	89.1	9.5
.277	.300	-34.7	89.3	.3	64.5	87.4	10.8
.319	.350	-49.1	90.7	.2	57.7	85.2	8.7
.359	.400	-67.4	90.7	.1	53.2	83.1	11.0
.399	.450	-87.4	89.9	.2	51.1	80.8	14.5
.437	.500	-105.5	88.2	.5	51.1	78.3	18.6
.473	.550	-119.4	85.4	1.1	53.2	75.4	23.2
.509	.600	-129.2	81.4	2.1	57.8	72.0	28.5
.526	.625	-133.0	78.8	2.9	61.3	70.1	31.7
.543	.650	-136.0	76.0	4.0	65.8	67.9	35.3
.559	.675	-138.5	73.2	5.6	71.7	65.6	39.5
.576	.700	-140.5	70.6	7.8	79.4	63.0	44.8
.592	.725	-142.0	69.2	11.1	89.6	60.1	51.6
.607	.750	-143.1	70.3	16.5	103.2	56.7	61.0
.638	.800	-143.7	97.4	45.6	146.9	48.0	100.5
.667	.850	-141.2	-116.6	116.6	-140.2	32.9	-142.4
.695	.900	-131.7	-50.4	146.2	-64.5	-12.8	-57.3
.721	.950	-88.0	-17.5	157.6	-21.9	-96.7	-26.7
.746	1.000	-11.2	8.6	167.8	5.6	-123.7	-28.7
.770	1.050	9.6	49.2	-173.1	36.1	-138.8	-70.3
.793	1.100	22.0	104.1	-117.4	90.5	-154.7	-84.8
.815	1.150	42.9	141.8	-62.4	145.9	171.6	-59.3
.835	1.200	107.5	171.7	-40.0	175.9	74.5	-3.2
.854	1.250	160.1	-150.0	-19.7	-157.2	38.0	40.8
.871	1.300	-180.0	-100.1	21.0	-111.1	18.8	73.2
.903	1.400	-92.1	-19.0	124.3	-15.1	-106.2	158.1
.951	1.600	124.4	173.9	-44.5	173.9	34.1	-11.3
.979	1.800	-43.4	24.1	-159.0	13.9	174.7	-143.0
.986	2.000	-135.5	-98.3	74.8	-60.3	-100.5	111.5

REC = 7

HEADING = 15. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	4.535E+00	8.190E-02	9.752E-01	3.667E-04	3.348E-03	3.341E-04
.218	.250	1.988E+00	8.348E-02	9.511E-01	1.006E-03	8.711E-03	7.763E-04
.254	.300	9.926E-01	8.454E-02	9.126E-01	2.440E-03	1.832E-02	1.721E-03
.288	.350	5.629E-01	8.518E-02	8.554E-01	5.528E-03	3.316E-02	3.672E-03
.313	.400	3.728E-01	8.690E-02	7.829E-01	1.227E-02	5.398E-02	7.735E-03
.347	.450	3.084E-01	8.028E-02	6.850E-01	2.488E-02	7.853E-02	1.277E-02
.373	.500	3.143E-01	6.807E-02	5.647E-01	4.519E-02	1.031E-01	1.830E-02
.397	.550	3.566E-01	5.298E-02	4.304E-01	7.249E-02	1.221E-01	2.344E-02
.417	.600	4.066E-01	3.767E-02	2.957E-01	1.009E-01	1.299E-01	2.686E-02
.427	.625	4.258E-01	3.069E-02	2.331E-01	1.121E-01	1.282E-01	2.748E-02
.436	.650	4.369E-01	2.451E-02	1.762E-01	1.192E-01	1.225E-01	2.718E-02
.444	.675	4.371E-01	1.927E-02	1.265E-01	1.207E-01	1.129E-01	2.587E-02
.451	.700	4.248E-01	1.506E-02	8.521E-02	1.162E-01	9.999E-02	2.358E-02
.458	.725	3.991E-01	1.184E-02	5.282E-02	1.063E-01	8.461E-02	2.042E-02
.465	.750	3.606E-01	9.529E-03	2.933E-02	9.324E-02	6.791E-02	1.665E-02
.475	.800	2.547E-01	5.815E-03	5.577E-03	7.269E-02	3.556E-02	8.645E-03
.484	.850	1.378E-01	5.156E-03	2.935E-03	8.744E-02	1.222E-02	2.788E-03
.489	.900	4.775E-02	3.291E-03	7.538E-03	1.448E-01	2.348E-03	1.287E-03
.492	.950	8.208E-03	1.271E-03	9.769E-03	2.001E-01	3.236E-03	3.506E-03
.493	1.000	1.256E-02	1.488E-04	6.166E-03	1.096E-01	7.300E-03	6.169E-03
.491	1.050	2.917E-02	5.555E-04	1.751E-03	1.115E-01	8.003E-03	6.327E-03
.486	1.100	2.979E-02	1.594E-03	2.409E-04	4.550E-02	4.611E-03	4.425E-03
.479	1.150	1.474E-02	1.659E-03	1.512E-03	5.385E-02	1.187E-03	3.545E-03
.470	1.200	5.994E-03	7.062E-04	2.353E-03	9.212E-02	8.894E-04	5.030E-03
.457	1.250	1.340E-02	6.229E-04	1.260E-03	8.070E-02	2.258E-03	6.360E-03
.443	1.300	2.039E-02	2.081E-03	8.473E-05	3.373E-02	2.197E-03	5.287E-03
.406	1.400	5.155E-03	1.574E-03	8.735E-04	4.460E-02	3.112E-04	5.662E-03
.302	1.600	1.447E-02	1.796E-03	3.143E-04	1.194E-02	2.170E-04	8.123E-03
.157	1.800	2.362E-01	8.892E-02	2.546E-05	3.983E-03	1.707E-04	2.927E-02
.029	2.000	3.549E+01	7.551E+01	1.506E-04	9.336E-04	1.460E-04	3.303E-01

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.180	.200	-15.5	88.3	.3	69.1	88.1	16.6
.218	.250	-23.6	88.4	.4	64.5	87.0	16.3
.254	.300	-35.4	88.3	.5	59.3	85.7	15.4
.288	.350	-48.5	88.3	.5	54.0	84.1	15.0
.319	.400	-66.4	88.4	.4	49.1	81.7	14.7
.347	.450	-85.1	87.3	.3	46.4	79.3	16.7
.373	.500	-104.0	85.1	.3	45.6	76.6	19.4
.397	.550	-118.0	81.5	.4	46.5	73.3	22.7
.417	.600	-128.0	75.8	.8	49.2	69.5	26.4
.427	.625	-131.8	71.9	1.1	51.5	67.3	28.4
.435	.650	-134.9	67.0	1.7	54.4	64.9	30.6
.444	.675	-137.4	61.1	2.5	58.3	62.3	33.1
.451	.700	-139.4	53.8	3.9	63.4	59.4	35.9
.459	.725	-140.9	45.3	6.2	70.3	56.1	39.1
.465	.750	-142.0	35.6	10.1	79.6	52.4	42.9
.475	.800	-142.6	15.5	33.5	108.4	42.8	54.0
.484	.850	-140.4	-1.3	109.6	145.4	26.5	78.8
.489	.900	-131.7	-11.5	140.0	173.0	-19.1	147.1
.492	.950	-92.3	-12.9	147.6	-159.0	-100.5	-163.7
.493	1.000	-12.4	25.6	151.8	-153.9	-130.3	-141.8
.491	1.050	10.4	116.9	161.6	-134.2	-148.0	-122.0
.495	1.100	23.3	130.6	-116.8	-92.7	-166.9	-93.1
.479	1.150	43.9	140.8	-64.4	-31.8	155.6	-47.2
.473	1.200	101.5	167.7	-58.8	-5	66.6	-4.2
.477	1.250	157.1	-114.1	-56.7	20.7	25.5	27.0
.443	1.300	-179.8	-75.8	-33.2	53.7	2.3	59.8
.406	1.400	-98.3	-16.3	97.1	162.6	-116.3	157.6
.392	1.600	118.1	-156.1	-102.2	-15.7	23.3	-18.5
.357	1.800	-35.2	67.4	-4.7	130.7	177.2	169.8
.029	2.000	171.0	-131.6	59.4	132.9	-28.1	-45.8

REC = 8 HEADING = 15. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/AVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	5.850E+00	9.643E-02	9.676E-01	3.947E-04	2.654E-03	2.443E-04
.202	.250	2.693E+00	1.041E-01	9.420E-01	1.076E-03	7.351E-03	6.760E-04
.232	.300	1.452E+00	1.086E-01	8.988E-01	2.570E-03	1.574E-02	1.548E-03
.257	.350	8.974E-01	1.111E-01	8.369E-01	5.572E-03	2.867E-02	3.323E-03
.278	.400	6.553E-01	1.088E-01	7.503E-01	1.101E-02	4.565E-02	6.208E-03
.296	.450	5.894E-01	1.062E-01	6.493E-01	2.092E-02	6.643E-02	1.287E-02
.310	.500	6.537E-01	9.545E-02	5.283E-01	3.531E-02	8.682E-02	2.161E-02
.320	.550	8.167E-01	7.887E-02	3.966E-01	5.199E-02	1.015E-01	3.151E-02
.326	.600	1.043E+00	6.025E-02	2.675E-01	6.555E-02	1.065E-01	4.073E-02
.328	.625	1.164E+00	5.157E-02	2.085E-01	6.891E-02	1.043E-01	4.424E-02
.329	.650	1.279E+00	4.408E-02	1.555E-01	6.895E-02	9.801E-02	4.651E-02
.323	.675	1.378E+00	3.826E-02	1.100E-01	6.529E-02	9.029E-02	4.717E-02
.327	.700	1.449E+00	3.442E-02	7.268E-02	5.812E-02	7.927E-02	4.597E-02
.325	.725	1.492E+00	3.263E-02	4.399E-02	4.824E-02	6.600E-02	4.278E-02
.322	.750	1.468E+00	3.263E-02	2.367E-02	3.703E-02	5.233E-02	3.771E-02
.313	.800	1.274E+00	3.542E-02	4.159E-03	1.759E-02	2.737E-02	2.352E-02
.300	.850	8.813E-01	3.559E-02	2.650E-03	1.140E-02	9.449E-03	8.955E-03
.284	.900	4.145E-01	2.694E-02	6.132E-03	1.845E-02	1.805E-03	7.109E-04
.263	.950	1.014E-01	1.158E-02	6.716E-03	2.929E-02	1.825E-03	2.225E-03
.239	1.000	1.846E-01	5.864E-04	3.689E-03	2.977E-02	4.239E-03	1.278E-02
.211	1.050	7.522E-01	1.925E-02	6.517E-04	1.671E-02	4.878E-03	2.252E-02
.179	1.100	1.579E+00	8.053E-02	2.886E-04	3.236E-03	3.133E-03	1.976E-02
.144	1.150	2.032E+00	1.393E-01	1.538E-03	2.308E-03	1.008E-03	7.267E-03
.105	1.200	2.562E+00	8.646E-02	1.788E-03	1.033E-02	3.243E-04	1.395E-02
.061	1.250	3.201E+01	4.994E-01	6.286E-04	1.223E-02	9.998E-04	7.002E-02
.014	1.300	1.922E+04	6.455E+02	6.109E-05	3.582E-03	2.282E-03	7.463E-01
.091	1.400	2.524E+00	2.707E-01	7.746E-04	9.613E-03	2.316E-04	2.384E-02
.347	1.500	8.561E-03	2.235E-03	3.682E-04	1.968E-02	2.077E-04	6.324E-03
.665	1.800	7.391E-04	7.451E-04	2.097E-05	6.751E-01	5.579E-04	2.743E-03
1.043	2.000	1.134E-05	5.309E-05	1.394E-04	1.957E-03	2.173E-04	4.708E-05

PHASE (MOTION-WAVEVENT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.170	.200	-15.4	87.0	.5	61.9	84.0	31.7
.202	.250	-23.5	87.2	.5	57.7	83.6	25.8
.232	.300	-34.1	87.0	.6	53.2	83.3	24.1
.257	.350	-48.0	86.3	.6	48.7	82.2	22.7
.278	.400	-65.2	85.1	.6	45.1	80.7	22.8
.296	.450	-84.2	83.6	.4	41.8	78.1	22.2
.310	.500	-101.8	80.4	.2	40.2	75.2	23.4
.320	.550	-115.7	75.3	.1	40.1	71.9	25.2
.326	.600	-125.7	66.9	.1	41.4	68.0	27.5
.328	.625	-129.5	61.0	.3	42.6	65.8	28.7
.329	.650	-132.6	53.7	.6	44.3	63.5	30.0
.328	.675	-135.0	44.9	1.3	46.5	60.9	31.4
.327	.700	-137.0	34.9	2.5	49.6	58.1	32.9
.325	.725	-138.4	24.2	4.6	53.9	55.1	34.4
.322	.750	-139.4	13.7	8.6	60.0	51.6	35.9
.313	.800	-139.8	-3.8	34.4	82.8	42.8	39.2
.284	.900	-128.8	-15.7	110.8	128.5	28.3	42.8
.263	.950	-93.2	-23.5	137.1	165.9	-11.2	48.9
.233	1.000	-10.3	-24.4	143.1	-177.2	-93.1	-141.4
.211	1.050	15.5	43.9	146.0	-167.6	-124.1	-134.8
.179	1.100	29.4	129.2	158.1	-158.6	-139.4	-128.4
.144	1.150	48.2	134.8	-85.0	-136.2	-153.2	-117.6
.105	1.200	95.0	139.7	-66.5	-24.6	-176.0	-82.7
.061	1.250	160.8	158.7	-57.9	1.6	114.1	4.4
.014	1.300	-170.3	-95.7	-76.1	9.6	61.1	27.9
.091	1.400	-106.4	-85.6	124.7	14.2	45.9	11.2
.347	1.500	118.3	-11.4	87.6	168.7	-45.0	151.6
.665	1.600	-43.8	-143.3	-99.0	-15.5	16.8	-15.3
1.043	2.000	-135.5	-133.6	125.4	-122.6	152.0	-129.7
			-92.4	76.6	-58.6	-101.0	116.4

REC = 9	HEADING =	15. DEG	SHIP SPEED = 20. KNOTS			
	RAO	(MOTION/MAVEHT)**2				
WE	SHAKE	SWAY	HEAVE	ROLL	PITCH	YAW
159	7.40E+00	1.21E-01	9.63E-01	4.50E-04	2.07E-03	1.86E-04
187	3.71E+00	1.39E-01	9.35E-01	1.23E-03	6.07E-03	4.88E-04
200	2.20E+00	1.56E-01	8.99E-01	2.93E-03	1.33E-02	1.180E-03
226	1.57E+00	1.71E-01	8.22E-01	6.26E-03	2.44E-02	2.63E-03
239	1.24E+00	1.84E-01	7.36E-01	1.21E-02	3.93E-02	2.56E-02
245	1.27E+00	1.93E-01	6.27E-01	2.12E-02	5.62E-02	1.08E-02
246	1.62E+00	1.94E-01	5.01E-01	3.37E-02	7.24E-02	1.89E-02
243	2.39E+00	1.87E-01	3.69E-01	4.63E-02	8.41E-02	3.06E-02
235	3.73E+00	1.76E-01	2.43E-01	5.63E-02	8.77E-02	4.51E-02
229	4.74E+00	1.70E-01	1.96E-01	5.82E-02	8.57E-02	5.27E-02
222	5.93E+00	1.67E-01	1.36E-01	5.77E-02	8.12E-02	6.02E-02
213	7.25E+00	1.68E-01	9.52E-02	5.53E-02	7.46E-02	6.80E-02
203	9.34E+00	1.77E-01	6.16E-02	4.97E-02	6.61E-02	7.43E-02
192	1.17E+01	1.98E-01	3.63E-02	4.18E-02	5.61E-02	7.81E-02
180	1.46E+01	2.35E-01	1.90E-02	3.23E-02	4.56E-02	7.85E-02
151	2.33E+01	3.94E-01	4.22E-03	1.35E-02	2.55E-02	6.97E-02
117	3.97E+01	8.02E-01	4.97E-03	1.87E-03	1.07E-02	4.96E-02
079	8.34E+01	2.72E+00	8.65E-03	2.53E-03	2.96E-03	3.61E-02
035	4.96E+02	6.47E+01	8.20E-03	1.15E-02	1.05E-03	1.52E-01
014	1.28E+04	1.44E+03	2.15E-03	1.48E-02	3.25E-03	3.61E-01
058	6.83E+01	2.84E-01	2.03E-04	1.46E-02	4.68E-03	3.73E-02
127	1.100	6.43E+00	2.83E-01	5.70E-04	3.45E-03	3.31E-02
191	1.150	6.45E-01	5.03E-02	1.59E-02	3.43E-03	3.89E-03
261	1.200	6.27E-02	4.73E-03	1.71E-03	1.82E-02	2.86E-04
335	1.250	4.30E-02	5.24E-03	9.48E-04	3.71E-02	1.270E-03
414	1.300	2.64E-02	4.91E-03	1.64E-04	3.19E-02	1.59E-03
588	1.400	1.15E-03	1.29E-04	9.09E-04	4.14E-01	3.23E-04
996	1.600	1.53E-04	2.17E-04	9.45E-04	1.53E-02	1.10E-03
1486	1.800	2.23E-05	2.22E-05	1.220E-03	4.69E-05	7.20E-04
2456	2.000	2.83E-06	2.50E-06	6.56E-05	1.30E-05	2.01E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.159	.200	-15.3	85.5	.5	55.4	75.9	51.9
.187	.250	-23.4	85.7	.5	51.5	78.4	43.8
.209	.300	-33.9	85.4	.5	47.3	79.4	39.5
.226	.350	-47.5	84.6	.5	43.3	79.3	36.9
.238	.400	-64.2	83.1	.4	39.7	77.9	34.4
.245	.450	-82.5	80.7	.2	37.0	76.1	33.5
.246	.500	-99.3	77.0	.0	35.1	73.7	33.5
.243	.550	-112.7	71.3	-.1	33.8	70.8	33.9
.235	.600	-122.3	62.7	-.0	33.3	67.5	34.7
.229	.625	-125.8	55.8	.3	33.2	65.8	35.2
.222	.650	-128.6	49.8	.9	33.4	63.9	35.6
.213	.675	-130.9	41.3	1.9	33.7	61.7	36.0
.203	.700	-132.6	31.6	3.7	34.2	59.5	36.4
.192	.725	-133.7	21.3	7.0	35.0	57.2	36.8
.180	.750	-134.3	11.3	13.4	36.3	54.9	36.8
.151	.800	-133.8	-7.6	50.5	41.7	49.3	35.9
.117	.850	-130.1	-23.9	109.3	66.1	41.6	30.9
.079	.900	-121.3	-40.5	125.5	-179.9	25.1	16.6
.035	.950	-92.8	-57.2	121.6	-159.1	-9.1	8.3
.014	1.000	-12.8	-60.8	121.0	-161.2	-78.0	19.4
.059	1.050	10.0	154.8	170.7	-159.6	-121.2	-110.0
.127	1.100	30.8	133.2	-86.2	-141.1	-141.8	-118.6
.191	1.150	47.5	144.2	-70.5	-31.5	-171.6	-69.3
.260	1.200	90.0	-171.4	-64.0	-5.1	84.5	-1.8
.335	1.250	157.6	-89.4	-55.5	13.8	31.0	30.4
.414	1.300	-179.4	-59.6	-15.6	50.7	8.5	63.2
.588	1.400	-90.4	114.4	109.9	175.3	-116.5	169.5
.996	1.600	123.7	-175.5	-11.1	172.6	36.9	-6.4
1.486	1.800	-43.9	35.2	-20.9	.8	-123.0	-127.4
2.055	2.000	-159.7	-105.4	-164.0	-92.0	9.6	129.1

REC = 10 HEADING = 15. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/AVEHT)*2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	9.723E+00	1.611E-01	9.657E-01	5.281E-04	1.744E-03	1.775E-04
.171	.250	5.335E+00	2.026E-01	9.328E-01	1.448E-03	4.958E-03	3.841E-04
.185	.300	3.525E+00	2.554E-01	8.872E-01	3.476E-03	1.125E-02	9.088E-04
.195	.350	2.768E+00	3.241E-01	8.196E-01	7.432E-03	2.080E-02	2.033E-03
.197	.400	2.669E+00	4.174E-01	7.293E-01	1.431E-02	3.330E-02	4.284E-03
.193	.450	3.329E+00	5.533E-01	6.179E-01	2.486E-02	4.740E-02	8.440E-03
.183	.500	5.410E+00	7.728E-01	4.901E-01	3.378E-02	6.054E-02	1.532E-02
.167	.550	1.096E+01	1.188E+00	3.547E-01	5.352E-02	6.952E-02	2.504E-02
.144	.600	2.681E+01	2.147E+00	2.314E-01	6.750E-02	7.279E-02	4.168E-02
.130	.625	4.567E+01	3.195E+00	1.753E-01	7.133E-02	7.140E-02	5.192E-02
.114	.650	8.422E+01	5.231E+00	1.250E-01	7.035E-02	6.848E-02	6.325E-02
.097	.675	1.727E+02	9.851E+00	8.548E-02	7.038E-02	6.323E-02	8.958E-02
.079	.700	4.224E+02	2.283E+01	5.392E-02	6.617E-02	5.652E-02	1.445E-01
.059	.725	1.416E+03	7.077E+01	3.033E-02	5.368E-02	5.296E-02	2.677E-01
.037	.750	8.672E+03	4.581E+02	1.597E-02	4.688E-02	3.856E-02	8.690E-01
.014	.800	3.703E+05	1.146E+04	1.692E-02	1.785E-02	4.550E-02	3.624E+00
.066	.850	4.238E+02	5.483E+00	9.853E-03	2.766E-03	1.530E-02	4.046E-02
.127	.900	1.159E+01	4.340E-01	8.991E-03	4.277E-03	2.614E-03	6.697E-03
.194	.950	3.737E-01	2.676E-02	6.027E-03	2.332E-02	8.433E-04	2.096E-03
.263	1.000	1.191E-01	7.522E-04	3.315E-03	3.902E-02	3.257E-03	6.914E-03
.343	1.050	1.084E-01	7.950E-03	1.504E-03	4.779E-02	4.683E-03	8.469E-03
.434	1.100	4.645E-02	5.481E-03	8.027E-04	3.759E-02	3.075E-03	4.479E-03
.526	1.150	1.011E-02	1.045E-03	1.466E-03	1.142E-01	7.252E-04	2.831E-03
.625	1.200	1.923E-03	1.686E-03	2.389E-03	1.344E+00	6.623E-04	6.113E-03
.731	1.250	2.318E-03	2.190E-03	2.603E-03	6.385E-01	2.522E-03	3.242E-04
.842	1.300	1.746E-03	6.488E-04	2.859E-03	4.856E-02	3.082E-03	1.605E-04
1.095	1.400	9.900E-05	2.468E-04	1.024E-03	1.396E-02	7.065E-04	1.101E-04
1.645	1.500	1.754E-05	1.609E-05	3.705E-06	4.674E-04	4.670E-04	2.152E-05
2.303	1.600	4.897E-06	4.432E-06	7.333E-05	3.193E-05	5.426E-05	1.990E-06
3.073	2.000	1.219E-05	1.168E-06	4.027E-04	5.197E-06	8.288E-04	1.006E-06

PHASE (MOTION-WAVEHT)

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.149	.200	-15.3	83.8	.4	50.2	61.6	76.1
.171	.250	-23.2	84.3	.4	47.4	70.6	77.0
.186	.300	-33.6	83.8	.3	43.1	72.9	68.1
.195	.350	-47.0	83.0	.2	39.4	73.7	63.8
.197	.400	-63.2	81.5	.0	36.3	73.3	61.7
.193	.450	-80.8	79.3	-.3	33.8	72.1	61.5
.183	.500	-96.9	76.3	-.5	31.9	70.4	63.7
.167	.550	-109.3	73.1	-.5	30.8	68.8	69.3
.144	.600	-118.3	69.0	-.3	29.8	65.8	76.7
.139	.625	-121.4	67.4	.4	29.6	64.9	83.4
.114	.650	-123.6	66.9	2.0	29.6	65.0	93.3
.097	.675	-125.5	65.8	3.8	29.5	63.1	103.7
.079	.700	-126.7	65.4	7.2	29.7	61.6	116.6
.059	.725	-126.8	67.2	16.9	29.8	64.4	133.0
.037	.750	-127.2	66.5	27.3	30.8	60.1	143.6
.014	.800	-126.2	61.8	83.8	28.3	59.2	148.0
.066	.850	-127.8	1.7	103.6	39.9	52.9	63.8
.127	.900	-123.1	-39.8	123.0	172.8	27.3	11.8
.194	.950	-92.4	-42.3	137.7	-174.0	-74.5	-106.5
.268	1.000	-10.4	100.1	153.1	-165.8	-118.3	-128.8
.348	1.050	12.3	134.6	177.7	-184.2	-138.7	-115.6
.434	1.100	24.0	150.2	-126.9	-98.6	-155.3	-87.8
.526	1.150	43.7	177.4	-74.3	-30.5	170.2	-38.9
.625	1.200	102.7	3.1	-44.1	26.5	72.9	21.1
.731	1.250	158.0	177.6	-11.4	170.4	37.0	127.0
.842	1.300	179.7	-93.4	27.9	-120.7	22.4	83.2
1.085	1.400	-91.2	-6.1	159.2	-11.3	-96.6	169.4
1.645	1.500	116.2	-167.0	-110.8	179.0	107.1	6.0
2.303	1.800	-55.0	21.2	8.0	-34.7	-121.4	-145.5
3.073	2.000	172.6	-136.4	-71.1	-68.2	127.3	132.7

REC = 11

HEADING = 30. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.191	.200	3.649E+00	2.686E-01	9.860E-01	1.350E-03	3.229E-03	1.039E-03
.236	.250	1.467E+00	2.653E-01	9.608E-01	3.738E-03	8.116E-03	2.309E-03
.280	.300	6.823E-01	2.590E-01	9.393E-01	9.174E-03	1.685E-02	4.674E-03
.322	.350	3.511E-01	2.896E-01	9.059E-01	2.272E-02	3.122E-02	1.160E-02
.364	.400	2.071E-01	2.824E-01	8.517E-01	5.339E-02	5.151E-02	2.010E-02
.404	.450	1.485E-01	2.532E-01	7.727E-01	1.181E-01	7.709E-02	2.983E-02
.443	.500	1.721E-01	2.129E-01	6.683E-01	2.449E-01	1.055E-01	4.010E-02
.481	.550	1.354E-01	1.694E-01	5.425E-01	4.776E-01	1.324E-01	4.966E-02
.518	.600	1.444E-01	1.286E-01	4.055E-01	8.793E-01	1.517E-01	5.684E-02
.555	.625	1.477E-01	1.106E-01	3.372E-01	1.171E+00	1.565E-01	5.895E-02
.554	.650	1.488E-01	9.472E-02	2.716E-01	1.544E+00	1.574E-01	5.975E-02
.571	.675	1.470E-01	8.094E-02	2.109E-01	2.022E+00	1.538E-01	5.904E-02
.589	.700	1.420E-01	6.909E-02	1.567E-01	2.638E+00	1.458E-01	5.654E-02
.605	.725	1.335E-01	5.856E-02	1.103E-01	3.448E+00	1.336E-01	5.194E-02
.622	.750	1.249E-01	4.817E-02	7.265E-02	4.537E+00	1.179E-01	4.472E-02
.654	.800	9.088E-02	1.743E-02	2.476E-02	6.488E+00	8.192E-02	1.648E-02
.685	.850	5.588E-02	3.808E-03	5.564E-03	5.413E+00	4.475E-02	3.704E-04
.716	.900	2.613E-02	1.978E-02	5.159E-03	3.660E+00	1.625E-02	3.840E-03
.745	.950	7.587E-03	2.191E-02	1.141E-02	2.826E+00	3.427E-03	2.450E-03
.773	1.000	9.856E-04	1.493E-02	1.459E-02	1.986E+00	5.567E-03	6.667E-04
.799	1.050	1.752E-03	7.155E-03	1.158E-02	1.101E+00	1.393E-02	3.866E-04
.825	1.100	3.733E-03	2.982E-03	5.733E-03	4.387E-01	1.770E-02	7.180E-04
.849	1.150	3.459E-03	2.556E-03	2.182E-03	1.605E-01	1.293E-02	7.635E-04
.873	1.200	1.582E-03	3.334E-03	2.543E-03	1.757E-01	4.147E-03	5.427E-04
.895	1.250	3.549E-04	3.162E-03	4.024E-03	2.375E-01	1.444E-03	4.791E-04
.915	1.300	6.016E-04	2.163E-03	3.709E-03	1.910E-01	5.439E-03	6.462E-04
.954	1.400	7.287E-04	1.813E-03	1.344E-03	6.223E-02	4.836E-03	6.875E-04
1.018	1.600	1.648E-04	1.004E-03	8.936E-04	2.256E-02	2.694E-03	4.962E-04
1.063	1.800	2.298E-05	6.575E-04	3.592E-04	1.916E-02	8.493E-04	2.731E-04
1.091	2.000	9.381E-05	1.866E-04	1.321E-04	1.200E-02	1.144E-03	1.880E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.191	.200	-14.3	89.4	.2	76.7	91.5	8.0
.236	.250	-21.6	89.5	.2	72.0	89.5	9.3
.280	.300	-31.3	89.5	.3	66.8	87.8	10.3
.322	.350	-44.1	90.9	.1	60.3	85.7	7.5
.364	.400	-60.5	90.9	.0	55.8	83.7	9.7
.404	.450	-79.6	90.2	.1	53.4	81.7	13.2
.443	.500	-98.3	88.8	.3	53.1	79.4	17.2
.481	.550	-113.7	86.5	.7	54.8	76.9	21.7
.518	.600	-125.2	83.4	1.5	58.9	73.9	27.0
.536	.625	-129.6	81.5	2.0	62.1	72.3	30.1
.554	.650	-133.4	79.6	2.7	66.3	70.4	33.6
.571	.675	-136.5	77.8	3.6	71.8	68.5	37.9
.589	.700	-139.1	76.6	4.8	79.0	66.3	43.2
.605	.725	-141.3	76.9	6.5	88.7	63.9	50.1
.622	.750	-143.1	80.2	9.0	102.1	61.2	59.6
.654	.800	-145.3	107.8	19.1	149.5	54.7	93.8
.685	.850	-145.8	-98.4	52.5	-134.7	45.8	-112.8
.715	.900	-143.7	-42.2	120.6	-70.5	30.2	-30.6
.745	.950	-135.5	-23.3	148.1	-33.0	-15.7	-16.9
.773	1.000	-93.2	-8.7	160.0	-9.4	-93.9	-29.0
.793	1.050	-10.7	11.2	173.7	10.3	-120.9	-81.1
.825	1.100	8.2	48.5	-171.7	35.3	-135.5	-98.8
.849	1.150	17.8	99.6	-130.1	82.4	-149.6	-88.9
.873	1.200	31.8	134.7	-73.1	138.0	-174.1	-60.5
.895	1.250	78.4	161.8	-42.4	169.0	102.8	-15.1
.916	1.300	149.2	-165.6	-19.6	-167.6	50.0	26.1
.954	1.400	-175.2	-76.8	61.7	-75.3	9.9	93.8
1.019	1.600	.1	86.8	-119.1	95.9	176.8	-86.8
1.063	1.800	-139.1	-78.0	70.5	-64.9	-52.4	110.4
1.091	2.000	99.0	155.6	-33.3	155.0	36.0	-37.0

REC = 12 HEADING = 30. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/HAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	4.436E+00	2.984E-01	9.780E-01	1.354E-03	2.597E-03	1.041E-03
.222	.250	1.883E+00	3.023E-01	9.574E-01	3.587E-03	6.856E-03	2.301E-03
.253	.300	9.284E-01	3.070E-01	9.255E-01	8.859E-03	1.484E-02	5.060E-03
.294	.350	5.104E-01	3.192E-01	8.801E-01	2.008E-02	2.705E-02	1.158E-02
.327	.400	3.191E-01	3.281E-01	8.214E-01	4.441E-02	4.492E-02	2.364E-02
.359	.450	2.411E-01	3.085E-01	7.394E-01	9.143E-02	6.700E-02	3.856E-02
.385	.500	2.252E-01	2.698E-01	6.349E-01	1.722E-01	9.082E-02	5.551E-02
.412	.550	2.434E-01	2.202E-01	5.127E-01	2.930E-01	1.124E-01	7.255E-02
.435	.600	2.755E-01	1.672E-01	3.826E-01	4.449E-01	1.267E-01	8.646E-02
.447	.625	2.911E-01	1.416E-01	3.185E-01	5.230E-01	1.297E-01	9.099E-02
.458	.650	3.035E-01	1.177E-01	2.572E-01	5.937E-01	1.293E-01	9.322E-02
.459	.675	3.108E-01	9.600E-02	2.005E-01	6.489E-01	1.253E-01	9.274E-02
.477	.700	3.113E-01	7.700E-02	1.500E-01	6.808E-01	1.178E-01	8.928E-02
.485	.725	3.041E-01	6.089E-02	1.065E-01	6.837E-01	1.071E-01	8.280E-02
.494	.750	2.895E-01	4.773E-02	7.091E-02	6.562E-01	9.377E-02	7.354E-02
.503	.800	2.338E-01	2.906E-02	2.367E-02	5.393E-01	6.271E-02	4.920E-02
.521	.850	1.583E-01	1.804E-02	4.276E-03	4.663E-01	3.286E-02	2.411E-02
.532	.900	8.239E-02	1.104E-02	2.654E-03	6.297E-01	1.176E-02	7.794E-03
.540	.950	2.725E-02	5.788E-03	7.098E-03	1.075E+00	2.744E-03	5.741E-03
.545	1.000	3.288E-03	1.930E-03	9.178E-03	1.522E+00	3.399E-03	1.454E-02
.549	1.050	6.135E-03	1.602E-04	6.658E-03	1.528E+00	7.287E-03	2.337E-02
.550	1.100	1.590E-02	7.337E-04	2.427E-03	9.986E-01	8.500E-03	2.320E-02
.549	1.150	1.751E-02	2.367E-03	2.713E-04	4.333E-01	5.666E-03	1.574E-02
.545	1.200	9.686E-03	2.767E-03	1.001E-03	3.798E-01	1.948E-03	1.107E-02
.539	1.250	2.871E-03	1.193E-03	2.242E-03	6.909E-01	7.819E-04	1.453E-02
.531	1.300	4.276E-03	1.353E-04	1.828E-03	7.493E-01	1.983E-03	1.950E-02
.509	1.400	7.327E-03	4.424E-03	7.180E-05	1.649E-01	1.529E-03	1.194E-02
.438	1.600	3.684E-03	7.832E-03	5.943E-05	4.987E-02	5.725E-04	1.140E-02
.327	1.800	1.879E-03	1.295E-02	1.250E-04	2.023E-02	1.076E-04	1.105E-02
.191	2.000	4.381E-02	1.238E-02	1.103E-04	1.439E-02	2.849E-05	5.263E-02

PHASE (MOTION-WAVEHT)

ME	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.182	.200	-14.2	88.3	.3	70.8	88.0	16.0
.222	.250	-21.5	88.5	.4	66.7	87.1	16.2
.259	.300	-31.1	88.4	.4	61.9	85.8	15.1
.294	.350	-43.7	88.8	.4	56.5	84.2	13.6
.327	.400	-59.7	88.9	.3	51.6	82.1	13.4
.358	.450	-78.5	88.1	.2	48.7	80.0	15.3
.386	.500	-97.0	85.4	.1	47.4	77.6	18.0
.412	.550	-112.4	83.6	.2	47.8	74.7	21.1
.436	.600	-124.0	79.5	.3	49.7	71.3	24.6
.447	.625	-128.5	76.8	.4	51.3	69.4	26.5
.458	.650	-132.3	73.5	.7	53.5	67.3	28.5
.468	.675	-135.5	69.5	1.0	56.3	65.1	30.7
.477	.700	-138.2	64.8	1.5	59.8	62.6	33.0
.486	.725	-140.4	59.2	2.5	64.4	59.8	35.7
.494	.750	-142.2	52.7	3.9	70.3	56.7	38.7
.503	.800	-144.6	36.9	10.3	88.5	49.4	46.5
.521	.850	-145.4	18.4	35.4	118.9	39.2	59.6
.532	.900	-145.8	-.4	114.0	154.2	21.8	90.3
.540	.950	-146.6	-18.4	142.0	179.9	-23.1	158.2
.545	1.000	-93.8	-37.8	149.2	-163.1	-97.0	-162.4
.549	1.050	-12.1	-89.4	153.0	-148.7	-128.2	-142.9
.550	1.100	8.6	156.5	150.2	-131.0	-146.4	-125.0
.549	1.150	18.7	138.9	-151.4	-96.7	-164.5	-99.3
.545	1.200	32.9	132.5	-58.2	-37.8	168.0	-56.8
.539	1.250	74.8	135.5	-58.0	-1.8	90.3	-12.6
.531	1.300	143.9	-134.5	-55.6	18.4	35.2	17.6
.509	1.400	-174.5	-65.9	75.6	93.0	-15.8	84.3
.436	1.600	3.2	95.4	-85.1	-112.2	143.1	-105.7
.327	1.800	-135.9	-82.0	78.9	110.3	-79.0	97.5
.181	2.000	-110.2	-175.9	-125.8	-23.0	19.6	-44.9

REC = 13

HEADING = 30. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 15. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	5.449E+00	3.435E-01	9.708E-01	1.438E-03	2.014E-03	7.987E-04
.207	.250	2.456E+00	3.665E-01	9.487E-01	3.889E-03	5.712E-03	2.033E-03
.239	.300	1.292E+00	3.817E-01	9.127E-01	9.220E-03	1.248E-02	4.628E-03
.266	.350	7.679E-01	3.862E-01	8.596E-01	1.993E-02	2.308E-02	9.537E-03
.291	.400	5.304E-01	3.961E-01	7.908E-01	4.079E-02	3.809E-02	2.089E-02
.312	.450	4.225E-01	3.911E-01	7.054E-01	7.907E-02	5.699E-02	4.103E-02
.323	.500	4.228E-01	3.591E-01	5.994E-01	1.387E-01	7.693E-02	6.711E-02
.344	.550	4.825E-01	3.072E-01	4.784E-01	2.169E-01	9.433E-02	9.742E-02
.354	.600	6.079E-01	2.441E-01	3.524E-01	2.980E-01	1.051E-01	1.278E-01
.359	.625	6.742E-01	2.122E-01	2.911E-01	3.310E-01	1.068E-01	1.410E-01
.362	.650	7.403E-01	1.813E-01	2.332E-01	3.534E-01	1.056E-01	1.515E-01
.364	.675	8.011E-01	1.545E-01	1.801E-01	3.613E-01	1.015E-01	1.582E-01
.366	.700	8.513E-01	1.318E-01	1.332E-01	3.523E-01	9.458E-02	1.602E-01
.366	.725	8.950E-01	1.145E-01	9.331E-02	3.260E-01	8.316E-02	1.567E-01
.366	.750	8.972E-01	1.039E-01	6.108E-02	2.847E-01	7.382E-02	1.474E-01
.363	.800	8.144E-01	9.555E-02	1.930E-02	1.791E-01	4.834E-02	1.125E-01
.357	.850	6.729E-01	9.864E-02	3.115E-03	9.601E-02	2.479E-02	5.452E-02
.348	.900	4.552E-01	9.423E-02	2.352E-03	8.565E-02	8.653E-03	2.131E-02
.334	.950	1.783E-01	6.862E-02	5.989E-03	1.409E-01	1.813E-03	1.722E-03
.318	1.000	3.415E-02	2.823E-02	6.914E-03	1.941E-01	1.862E-03	1.235E-02
.298	1.050	5.874E-02	2.489E-03	4.185E-03	1.781E-01	4.108E-03	3.818E-02
.275	1.100	2.234E-01	2.022E-02	1.013E-03	9.975E-02	4.758E-03	5.310E-02
.248	1.150	3.934E-01	8.923E-02	1.079E-04	2.719E-02	3.226E-03	4.830E-02
.218	1.200	3.989E-01	1.423E-01	1.077E-03	7.353E-03	1.165E-03	2.208E-02
.184	1.250	2.494E-01	8.051E-02	1.756E-03	3.803E-02	2.586E-04	2.554E-02
.147	1.300	5.644E-01	7.683E-02	1.058E-03	5.837E-03	6.121E-04	1.110E-01
.063	1.400	3.655E+01	1.754E+01	2.289E-04	2.314E-03	1.304E-03	3.491E-01
.146	1.600	3.497E-01	5.441E-01	9.149E-05	2.342E-03	3.510E-04	5.065E-02
.410	1.800	7.235E-04	6.016E-03	1.416E-04	4.969E-02	9.815E-05	8.240E-03
.728	2.000	4.278E-04	2.226E-03	2.638E-04	5.844E-01	3.530E-04	1.178E-04

PHASE (NOTION-WAVEHT)

ME	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-14.1	87.1	.4	63.9	82.9	29.6
.207	.250	-21.4	87.3	.5	60.3	83.1	25.1
.233	.300	-30.9	87.2	.5	56.0	82.9	23.0
.266	.350	-43.2	86.8	.5	51.7	82.2	22.0
.291	.400	-58.6	85.3	.5	47.4	80.5	20.5
.312	.450	-77.0	85.1	.2	44.1	78.3	20.3
.329	.500	-95.1	82.8	.0	42.3	75.7	21.5
.344	.550	-110.4	79.0	.3	41.9	72.7	23.5
.354	.600	-122.0	73.2	.5	42.7	69.2	25.8
.359	.625	-126.5	69.2	.6	43.6	67.2	27.1
.362	.650	-130.3	64.2	.7	44.8	65.1	28.4
.364	.675	-133.5	58.2	.6	46.5	62.8	29.8
.366	.700	-136.2	50.8	.4	48.7	60.3	31.4
.368	.725	-138.3	42.2	.2	51.7	57.5	33.0
.369	.750	-140.1	32.6	1.2	55.6	54.5	34.8
.371	.800	-142.3	13.0	7.0	68.7	47.4	38.9
.373	.850	-142.8	-3.0	33.7	95.9	37.9	44.6
.375	.900	-140.9	-13.2	114.3	138.9	22.1	55.0
.377	.950	-133.4	-18.1	137.7	169.6	-18.8	112.3
.379	1.000	-99.1	-16.3	142.8	-174.8	-95.5	-152.0
.381	1.050	-9.7	29.4	145.1	-165.7	-126.2	-138.2
.383	1.100	13.8	124.7	152.2	-158.5	-141.6	-131.6
.385	1.150	25.0	133.3	-108.6	-140.5	-156.2	-119.7
.387	1.200	39.3	138.8	-66.7	-50.3	-176.5	-91.0
.389	1.250	74.5	154.4	-65.0	-6.1	123.4	-16.2
.391	1.300	145.1	-107.2	-69.8	3.8	55.8	19.2
.393	1.350	-161.5	-68.0	102.0	38.5	23.3	34.7
.395	1.400	7.5	102.2	-79.5	-160.5	-179.1	-134.1
.397	1.450	-132.5	-71.2	82.2	108.7	-88.3	100.2
.399	1.500	98.6	117.6	-84.4	109.8	-.9	48.5

REC = 14 HEADING = 30. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.164	.200	6.762E+00	4.171E-01	9.563E-01	1.616E-03	1.533E-03	5.802E-04
.193	.250	3.264E+00	4.693E-01	9.427E-01	4.359E-03	4.689E-03	1.531E-03
.218	.300	1.856E+00	5.145E-01	9.027E-01	1.032E-02	1.044E-02	3.456E-03
.239	.350	1.202E+00	5.575E-01	8.477E-01	2.203E-02	1.969E-02	7.953E-03
.255	.400	8.999E-01	5.887E-01	7.726E-01	4.299E-02	3.232E-02	1.634E-02
.265	.450	8.133E-01	6.030E-01	6.769E-01	7.649E-02	4.737E-02	3.048E-02
.273	.500	9.047E-01	5.959E-01	5.642E-01	1.235E-01	6.296E-02	5.257E-02
.275	.550	1.183E+00	5.646E-01	4.414E-01	1.797E-01	7.633E-02	8.437E-02
.278	.600	1.673E+00	5.108E-01	3.180E-01	2.328E-01	8.430E-02	1.259E-01
.279	.625	2.013E+00	4.785E-01	2.596E-01	2.526E-01	8.539E-02	1.494E-01
.266	.650	2.413E+00	4.460E-01	2.051E-01	2.644E-01	8.426E-02	1.736E-01
.261	.675	2.985E+00	4.167E-01	1.560E-01	2.662E-01	8.084E-02	1.972E-01
.255	.700	3.421E+00	3.953E-01	1.132E-01	2.665E-01	7.527E-02	2.186E-01
.247	.725	4.023E+00	3.870E-01	7.742E-02	2.351E-01	6.789E-02	2.356E-01
.239	.750	4.680E+00	3.971E-01	4.919E-02	2.032E-01	5.891E-02	2.460E-01
.213	.800	6.111E+00	4.946E-01	1.435E-02	1.212E-01	3.923E-02	2.411E-01
.193	.850	7.545E+00	7.435E-01	2.784E-03	4.586E-02	2.119E-02	1.994E-01
.164	.900	8.690E+00	1.146E+00	3.864E-03	8.029E-03	8.374E-03	1.245E-01
.123	.950	8.803E+00	1.862E+00	7.214E-03	2.073E-02	2.015E-03	5.591E-02
.091	1.000	7.596E+00	4.639E+00	6.956E-03	6.115E-02	7.006E-04	5.300E-02
.049	1.050	8.087E+01	3.280E+01	3.075E-03	8.099E-02	1.980E-03	1.636E-01
.014	1.100	3.231E+04	1.320E+03	2.235E-05	5.610E-02	5.614E-03	5.942E-01
.052	1.150	2.143E+02	1.390E+01	6.311E-04	2.090E-02	4.576E-03	1.914E-01
.103	1.200	7.026E+00	1.938E+00	1.534E-03	2.411E-03	1.687E-03	3.636E-02
.171	1.250	3.447E-01	1.124E-01	1.850E-03	3.979E-02	1.930E-04	1.562E-02
.237	1.300	9.789E-02	2.229E-02	1.064E-03	8.290E-02	5.943E-04	3.811E-02
.382	1.400	2.243E-02	2.506E-02	9.777E-05	5.370E-02	8.405E-04	1.706E-02
.727	1.500	4.916E-04	3.579E-03	1.022E-04	4.442E-01	7.422E-04	5.530E-04
1.146	1.600	1.957E-05	4.011E-04	4.825E-04	1.152E-02	4.791E-04	2.106E-04
1.636	2.000	1.853E-05	2.534E-05	7.633E-05	8.133E-04	2.806E-04	3.546E-05

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.154	.200	-14.1	85.7	.5	57.5	74.1	50.3
.193	.350	-21.3	86.0	.5	54.0	76.9	40.8
.219	.300	-30.7	85.9	.5	50.1	78.8	37.8
.239	.350	-42.8	85.3	.4	46.0	79.6	33.7
.255	.400	-58.0	84.1	.3	42.4	77.7	31.8
.265	.450	-75.4	82.3	.1	39.6	76.2	31.0
.273	.500	-92.7	79.5	-.1	37.5	74.1	30.9
.275	.550	-107.4	75.3	-.5	36.0	71.4	31.1
.275	.600	-118.7	68.9	-.8	35.2	68.2	31.6
.273	.625	-123.1	64.5	-.9	35.0	66.4	32.0
.265	.650	-126.8	59.1	-.9	35.0	64.4	32.4
.251	.675	-129.8	52.4	-.8	35.2	62.4	32.8
.235	.700	-132.3	44.5	-.4	35.6	60.2	33.2
.217	.725	-134.2	35.3	.4	36.3	57.9	33.5
.209	.750	-135.7	25.2	2.1	37.3	55.5	33.8
.218	.800	-137.2	4.5	11.4	40.9	50.1	33.8
.193	.850	-136.8	-13.9	50.9	53.8	43.3	32.7
.184	.900	-133.6	-28.8	114.1	95.1	33.8	26.9
.129	.950	-124.9	-43.1	129.9	174.7	11.9	7.6
.091	1.000	-94.7	-60.4	131.9	-167.7	-53.6	-35.7
.048	1.050	-12.2	-74.1	128.5	-162.0	-91.9	-33.9
.014	1.100	20.2	-77.5	147.1	-163.8	-101.5	-6.0
.002	1.150	31.1	128.6	-81.5	-159.7	-128.9	-129.4
.109	1.200	42.4	128.8	-73.3	-46.1	-152.8	-120.2
.171	1.250	74.5	152.4	-69.8	-5.6	145.1	-11.6
.237	1.300	144.8	-109.3	-66.4	3.2	47.4	18.7
.332	1.400	-172.0	-50.0	71.9	81.5	-6.9	83.9
.727	1.500	.3	64.2	-146.1	40.2	151.4	-45.8
1.146	1.600	-137.1	-64.9	54.7	-64.1	-48.5	117.3
1.636	2.000	87.6	-179.3	-94.6	154.3	90.6	-26.1

REC = 15

HEADING = 30. DEG
SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVENT)**2

WE	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	8.493E+00	5.310E-01	9.684E-01	1.966E-03	1.313E-03	5.448E-04
.179	4.438E+00	6.424E-01	9.415E-01	5.073E-03	3.891E-03	1.178E-03
.193	2.761E+00	7.730E-01	9.017E-01	1.203E-02	8.913E-03	2.696E-03
.211	1.991E+00	9.261E-01	8.420E-01	2.554E-02	1.668E-02	5.836E-03
.218	1.692E+00	1.110E+00	7.640E-01	4.922E-02	2.722E-02	1.203E-02
.221	1.768E+00	1.335E+00	6.654E-01	8.650E-02	3.983E-02	2.355E-02
.216	2.323E+00	1.624E+00	5.533E-01	1.395E-01	5.289E-02	4.342E-02
.206	3.740E+00	2.024E+00	4.303E-01	2.013E-01	6.392E-02	7.479E-02
.191	6.921E+00	2.561E+00	3.062E-01	2.655E-01	7.009E-02	1.183E-01
.181	9.822E+00	3.158E+00	2.471E-01	2.852E-01	7.062E-02	1.426E-01
.171	1.434E+01	3.877E+00	1.917E-01	3.007E-01	6.928E-02	1.655E-01
.157	2.162E+01	4.953E+00	1.441E-01	3.102E-01	6.669E-02	1.954E-01
.143	3.391E+01	6.724E+00	1.329E-01	3.038E-01	6.249E-02	2.268E-01
.123	5.659E+01	9.835E+00	5.846E-02	2.925E-01	5.697E-02	2.521E-01
.111	1.024E+02	1.579E+01	4.158E-02	2.574E-01	5.096E-02	2.664E-01
.073	5.233E+02	7.068E+01	1.247E-02	1.798E-01	3.703E-02	4.583E-01
.023	1.690E+04	2.241E+03	7.927E-03	8.598E-02	2.301E-02	2.818E+00
.021	4.128E+04	2.948E+03	1.838E-02	1.275E-02	1.948E-02	1.902E+00
.076	8.246E+01	1.278E+01	1.011E-02	9.725E-03	3.854E-03	9.369E-02
.137	1.304E+00	6.835E-01	6.366E-03	7.556E-02	5.648E-04	1.354E-02
.203	2.614E-01	6.208E-04	3.150E-03	1.345E-01	2.368E-03	3.413E-02
.275	2.217E-01	3.718E-02	9.749E-04	1.255E-01	3.690E-03	3.482E-02
.353	9.666E-02	4.484E-02	4.335E-04	8.844E-02	2.931E-03	2.394E-02
.435	2.345E-02	1.576E-02	1.081E-03	1.361E-01	9.684E-04	1.234E-02
.526	3.219E-03	1.276E-03	1.994E-03	6.880E-01	3.572E-04	1.303E-02
.621	2.365E-03	5.157E-03	1.870E-03	3.864E+00	1.448E-03	2.136E-02
.824	1.151E-03	2.818E-03	1.219E-03	1.674E-01	1.722E-03	5.274E-04
1.309	6.062E-05	2.565E-04	4.884E-03	3.526E-03	1.159E-03	2.124E-04
1.883	7.029E-06	3.952E-05	3.018E-04	5.282E-04	4.718E-05	2.777E-05
2.545	1.631E-06	2.375E-06	8.939E-05	1.352E-04	3.128E-05	6.212E-06

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.155	.200	-14.0	84.1	.4	52.2	57.7	71.8
.179	.250	-21.2	84.5	.4	49.4	67.5	68.0
.198	.300	-30.5	84.4	.3	45.6	71.1	61.1
.211	.350	-42.4	83.7	.2	41.9	72.8	57.2
.213	.400	-57.1	82.6	-.0	38.7	73.0	54.5
.221	.450	-73.9	80.7	-.3	36.0	72.0	52.8
.216	.500	-90.5	78.0	-.7	33.7	70.2	52.2
.206	.550	-104.7	74.4	-1.2	32.0	67.8	53.0
.191	.600	-115.3	69.7	-1.5	30.8	65.3	55.5
.181	.625	-119.3	67.2	-1.5	30.3	64.1	57.5
.170	.650	-122.4	64.7	-1.2	30.0	63.2	60.3
.157	.675	-125.1	61.8	-.7	29.6	61.6	63.4
.143	.700	-127.2	59.1	.2	29.4	60.1	67.5
.128	.725	-128.5	57.1	2.4	29.2	59.2	73.4
.111	.750	-129.1	56.4	6.9	29.0	59.7	82.0
.073	.800	-129.7	54.3	26.5	29.0	57.0	106.2
.023	.850	-128.0	53.0	81.4	29.1	56.6	133.5
.021	.900	-125.9	23.9	104.3	24.7	57.9	108.5
.076	.950	-122.2	40.7	119.0	-175.1	36.1	20.4
.137	1.000	-95.3	-57.4	131.6	-170.3	-53.6	-64.2
.203	1.050	-9.1	-132.0	141.1	-166.5	-114.4	-121.5
.275	1.100	13.8	132.5	167.6	-157.1	-134.4	-124.7
.353	1.150	21.9	143.9	-133.9	-118.8	-153.4	-99.4
.436	1.200	34.4	160.6	-80.3	-47.8	-179.5	-56.2
.526	1.250	74.8	-148.6	-50.1	-1.2	91.2	-7.2
.621	1.300	143.9	15.5	-34.6	48.2	40.8	40.5
.828	1.400	-175.7	-73.3	39.8	-95.5	2.7	103.8
1.309	1.500	5.7	100.5	-63.4	108.3	-144.9	-72.0
1.883	1.600	-120.6	-70.8	154.4	-70.1	-19.9	125.3
2.545	2.000	61.1	169.7	53.4	127.8	-119.8	-48.4

REC = 16	HEADING =	45. DEG	SHIP SPEED =	5. KNOTS			
		RAO	(MOTION/WAVEVENT)**2				
WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	3.539E+00	5.292E-01	9.896E-01	2.698E-03	2.080E-03	1.439E-03
.238	.250	1.416E+00	5.237E-01	9.775E-01	7.321E-03	5.309E-03	3.105E-03
.283	.300	6.541E-01	5.246E-01	9.578E-01	1.768E-02	1.121E-02	6.556E-03
.328	.350	3.307E-01	5.896E-01	9.391E-01	4.207E-02	2.123E-02	1.602E-02
.370	.400	1.843E-01	5.841E-01	9.056E-01	9.662E-02	3.589E-02	2.745E-02
.412	.450	1.174E-01	5.392E-01	8.525E-01	2.140E-01	5.540E-02	4.091E-02
.454	.500	8.969E-02	4.747E-01	7.769E-01	4.580E-01	7.902E-02	5.620E-02
.494	.550	8.224E-02	4.038E-01	6.785E-01	9.535E-01	1.047E-01	7.257E-02
.533	.600	8.438E-02	3.369E-01	5.613E-01	1.952E+00	1.290E-01	8.863E-02
.552	.625	8.680E-02	3.075E-01	4.980E-01	2.739E+00	1.392E-01	9.589E-02
.572	.650	8.921E-02	2.821E-01	4.334E-01	3.992E+00	1.474E-01	1.020E-01
.590	.675	9.104E-02	2.610E-01	3.590E-01	5.722E+00	1.530E-01	1.061E-01
.609	.700	9.184E-02	2.430E-01	3.065E-01	8.179E+00	1.554E-01	1.066E-01
.627	.725	9.126E-02	2.240E-01	2.474E-01	1.145E+01	1.544E-01	1.001E-01
.646	.750	9.918E-02	1.902E-01	1.979E-01	1.416E+01	1.525E-01	7.927E-02
.681	.800	7.975E-02	1.252E-02	1.140E-01	1.230E+01	1.384E-01	2.230E-02
.715	.850	5.415E-02	6.465E-02	5.361E-02	5.113E+00	1.117E-01	6.762E-03
.750	.900	4.513E-02	3.330E-02	1.840E-02	1.874E+00	7.704E-02	7.894E-03
.782	.950	2.652E-02	1.343E-02	5.024E-03	1.154E+00	4.234E-02	5.914E-03
.814	1.000	1.194E-02	1.991E-02	5.904E-03	1.205E+00	1.627E-02	2.400E-03
.845	1.050	3.297E-03	1.935E-02	1.171E-02	1.270E+00	4.495E-03	2.598E-04
.875	1.100	2.639E-04	1.369E-02	1.509E-02	1.100E+00	6.637E-03	1.906E-04
.904	1.150	6.337E-04	7.123E-03	1.342E-02	7.359E-01	1.564E-02	1.191E-03
.933	1.200	1.748E-03	3.218E-03	8.785E-03	3.615E-01	2.155E-02	1.933E-03
.960	1.250	1.957E-03	2.726E-03	4.851E-03	1.431E-01	1.849E-02	1.879E-03
.986	1.300	1.188E-03	3.780E-03	3.434E-03	1.143E-01	9.321E-03	1.386E-03
1.036	1.400	7.781E-05	2.954E-03	3.228E-03	1.720E-01	3.399E-03	1.110E-03
1.125	1.500	5.798E-05	1.652E-03	1.841E-03	5.707E-02	1.436E-03	7.482E-04
1.193	1.600	2.230E-05	7.336E-04	1.355E-03	1.803E-02	1.213E-03	5.295E-04
1.257	2.000	5.586E-06	4.495E-04	4.404E-04	8.439E-03	7.587E-04	3.080E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.193	.200	-12.3	89.4	.2	79.0	92.3	7.6
.239	.250	-18.4	89.5	.2	75.3	90.1	9.1
.283	.300	-26.2	89.8	.2	70.9	88.4	9.0
.327	.350	-36.4	91.0	.0	65.1	86.4	5.5
.370	.400	-49.6	91.1	-.1	60.8	84.7	7.6
.412	.450	-66.0	90.5	-.1	58.3	83.1	11.2
.454	.500	-84.1	89.5	.1	57.7	81.3	15.3
.494	.550	-101.3	87.9	.4	59.3	79.2	19.9
.533	.600	-115.4	85.9	.8	63.5	76.9	25.4
.572	.625	-121.2	84.8	1.1	67.0	75.6	28.8
.590	.650	-126.2	83.9	1.5	71.7	74.2	32.8
.609	.675	-130.6	83.5	2.0	73.2	72.7	37.8
.627	.700	-134.3	84.2	2.5	87.0	71.1	44.2
.646	.725	-137.6	87.1	3.2	99.2	69.3	52.6
.681	.750	-140.3	93.5	4.1	116.3	67.3	63.0
.716	.800	-144.6	111.1	7.1	159.6	63.0	76.4
.750	.850	-147.7	109.5	13.0	-158.2	57.8	42.1
.782	.900	-149.8	-4.0	26.4	-115.0	51.2	23.3
.814	1.000	-150.8	-18.9	65.9	-71.0	42.0	23.1
.845	1.050	-150.1	-19.2	126.0	-37.6	25.5	26.0
.875	1.100	-145.3	-15.7	152.0	-15.8	-19.0	26.0
.904	1.150	-110.3	-8.0	165.9	-1.8	-86.5	-130.8
.933	1.200	-5.7	7.5	178.9	12.5	-113.5	-128.0
.960	1.250	12.6	39.7	-163.4	31.4	-127.4	-117.7
.986	1.300	18.2	87.1	-134.7	66.8	-139.3	-101.3
1.016	1.400	110.4	120.9	-94.8	120.4	-155.3	-75.2
1.035	1.500	169.6	169.6	-21.6	177.4	84.6	1.9
1.053	1.600	-170.1	-43.3	109.3	-29.2	-32.7	141.2
1.071	1.700	4.9	116.0	-83.2	139.6	156.4	-54.0
1.089	1.800	-156.0	-67.6	80.6	-51.8	-51.8	127.3

REC = 17 HEADING = 45. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)*2

NE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.185	.200	4.142E+00	5.746E-01	9.820E-01	2.671E-03	1.599E-03	1.509E-03
.227	.250	1.730E+00	5.802E-01	9.667E-01	7.195E-03	4.357E-03	3.133E-03
.267	.300	8.362E-01	5.863E-01	9.436E-01	1.703E-02	9.527E-03	6.560E-03
.305	.350	4.449E-01	6.380E-01	9.160E-01	3.803E-02	1.830E-02	1.664E-02
.341	.400	2.599E-01	6.603E-01	8.779E-01	8.301E-02	3.136E-02	3.225E-02
.375	.450	1.729E-01	6.341E-01	8.213E-01	1.732E-01	4.850E-02	5.138E-02
.407	.500	1.372E-01	5.766E-01	7.443E-01	3.407E-01	6.879E-02	7.394E-02
.439	.550	1.304E-01	5.001E-01	6.479E-01	6.280E-01	9.029E-02	9.886E-02
.466	.600	1.393E-01	4.150E-01	5.362E-01	1.077E+00	1.100E-01	1.237E-01
.481	.625	1.465E-01	3.719E-01	4.768E-01	1.371E+00	1.180E-01	1.350E-01
.493	.650	1.541E-01	3.297E-01	4.165E-01	1.710E+00	1.243E-01	1.447E-01
.506	.675	1.612E-01	2.891E-01	3.567E-01	2.085E+00	1.283E-01	1.522E-01
.518	.700	1.689E-01	2.500E-01	2.987E-01	2.483E+00	1.297E-01	1.568E-01
.530	.725	1.703E-01	2.151E-01	2.437E-01	2.892E+00	1.283E-01	1.579E-01
.541	.750	1.708E-01	1.822E-01	1.930E-01	3.254E+00	1.241E-01	1.550E-01
.552	.800	1.616E-01	1.242E-01	1.082E-01	3.779E+00	1.074E-01	1.358E-01
.562	.850	1.382E-01	7.520E-02	4.911E-02	3.846E+00	8.249E-02	1.005E-01
.579	.900	1.041E-01	3.426E-02	1.560E-02	3.632E+00	5.436E-02	5.681E-02
.615	.950	6.592E-02	6.702E-03	2.566E-03	4.151E+00	2.905E-02	2.023E-02
.629	1.000	3.237E-02	3.086E-03	2.014E-03	7.115E+00	1.155E-02	7.863E-03
.641	1.050	9.961E-03	2.547E-02	5.908E-03	1.274E+01	3.682E-03	2.406E-02
.651	1.100	8.829E-04	5.080E-02	8.389E-03	1.818E+01	3.793E-03	5.127E-02
.659	1.150	1.563E-03	5.094E-02	7.249E-03	1.861E+01	7.332E-03	6.241E-02
.665	1.200	5.352E-03	2.702E-02	3.811E-03	1.303E+01	9.389E-03	4.879E-02
.670	1.250	6.773E-03	5.682E-03	9.130E-04	6.047E+00	7.763E-03	2.425E-02
.673	1.300	4.610E-03	9.522E-03	3.272E-04	3.578E+00	3.998E-03	8.800E-03
.672	1.400	4.059E-04	3.277E-02	2.071E-03	1.030E+01	1.397E-03	2.409E-02
.690	1.600	3.464E-04	1.194E-02	4.840E-04	4.435E+00	6.254E-04	1.578E-02
.597	1.800	1.217E-04	1.676E-03	1.970E-04	7.049E-01	3.873E-04	1.124E-02
.515	2.000	1.815E-06	2.865E-03	1.484E-04	1.949E-01	1.823E-04	9.779E-03

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.185	.200	-12.2	88.4	.3	73.6	87.6	15.0
.227	.250	-18.3	88.6	.4	70.4	86.9	15.6
.267	.300	-26.1	88.6	.4	66.5	85.9	14.8
.305	.350	-36.1	89.5	.3	61.3	84.2	11.1
.341	.400	-49.1	89.6	.2	56.7	82.6	11.0
.375	.450	-65.2	89.0	.1	53.6	80.9	13.0
.407	.500	-83.0	87.8	.0	51.9	79.1	15.8
.433	.550	-100.2	85.0	.0	51.8	76.8	18.9
.465	.600	-114.4	83.4	.0	53.1	74.2	22.3
.480	.625	-120.3	81.7	.0	54.3	72.7	24.1
.493	.650	-125.4	79.9	.0	55.9	71.1	26.1
.506	.675	-129.8	77.7	.0	58.0	69.3	28.1
.518	.700	-133.6	75.4	.1	60.5	67.4	30.3
.530	.725	-136.9	72.8	.3	63.7	65.3	32.7
.541	.750	-139.7	70.0	.5	67.5	63.0	35.3
.562	.800	-144.4	64.1	1.5	78.1	57.8	41.5
.582	.850	-147.8	58.2	3.9	94.3	51.4	49.8
.593	.900	-150.4	52.2	10.6	120.1	43.3	62.2
.615	.950	-151.9	38.5	38.3	157.4	32.0	86.9
.629	1.000	-152.1	-76.1	120.6	-164.3	13.2	156.7
.641	1.050	-148.7	-93.5	145.6	-135.1	-27.9	-142.0
.651	1.100	-122.6	-88.5	132.3	-109.1	-90.5	-117.9
.659	1.150	-6.6	-78.7	155.9	-88.4	-123.9	-101.8
.665	1.200	7.3	-63.1	160.9	-67.2	-143.2	-87.2
.670	1.250	12.1	-21.8	177.8	-36.7	-160.2	-68.0
.673	1.300	17.7	59.7	-96.4	18.6	177.5	-26.9
.672	1.400	100.6	98.0	-52.4	84.8	64.7	60.9
.651	1.500	-178.9	-123.4	106.0	-153.6	-76.6	177.1
.597	1.800	-5.2	67.5	-79.3	-34.3	93.6	-59.6
.515	2.000	-78.3	-89.1	94.5	128.8	-127.5	111.6

REC = 18

HEADING = 45. DEG
RAOSHIP SPEED = 15. KNOTS
(MOIION/HAVENT)*2

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.178	.200	4.879E+00	6.391E-01	9.753E-01	2.779E-03	1.179E-03	1.254E-03
.215	.250	2.135E+00	6.690E-01	9.580E-01	7.444E-03	3.510E-03	2.746E-03
.250	.300	1.085E+00	6.946E-01	9.322E-01	1.741E-02	8.000E-03	6.124E-03
.282	.350	6.135E-01	7.089E-01	8.933E-01	3.741E-02	1.525E-02	1.267E-02
.311	.400	3.792E-01	7.611E-01	8.511E-01	7.783E-02	2.675E-02	3.151E-02
.337	.450	2.655E-01	7.606E-01	7.909E-01	1.541E-01	4.170E-02	5.702E-02
.361	.500	2.228E-01	7.187E-01	7.117E-01	2.842E-01	5.914E-02	8.948E-02
.382	.550	2.226E-01	6.490E-01	6.151E-01	4.825E-01	7.722E-02	1.283E-01
.393	.600	2.510E-01	5.496E-01	5.058E-01	7.463E-01	9.328E-02	1.706E-01
.407	.625	2.721E-01	4.971E-01	4.484E-01	8.935E-01	9.961E-02	1.915E-01
.415	.650	2.956E-01	4.433E-01	3.907E-01	1.041E+00	1.043E-01	2.111E-01
.421	.675	3.200E-01	3.899E-01	3.337E-01	1.177E+00	1.070E-01	2.282E-01
.427	.700	3.734E-01	3.383E-01	2.787E-01	1.290E+00	1.075E-01	2.416E-01
.432	.725	3.641E-01	2.899E-01	2.269E-01	1.367E+00	1.057E-01	2.503E-01
.437	.750	3.801E-01	2.462E-01	1.791E-01	1.395E+00	1.014E-01	2.531E-01
.444	.800	3.918E-01	1.762E-01	9.960E-02	1.284E+00	8.645E-02	2.390E-01
.448	.850	3.680E-01	1.316E-01	4.447E-02	9.769E-01	6.517E-02	1.950E-01
.449	.900	3.598E-01	1.086E-01	1.344E-02	6.199E-01	4.200E-02	1.322E-01
.447	.950	2.174E-01	9.613E-02	1.739E-03	4.219E-01	2.177E-02	6.667E-02
.443	1.000	1.209E-01	8.071E-02	1.698E-03	5.125E-01	8.221E-03	2.013E-02
.436	1.050	4.319E-02	5.454E-02	5.312E-03	8.124E-01	2.334E-03	7.782E-03
.426	1.100	4.759E-03	2.270E-02	7.059E-03	1.061E+00	2.220E-03	2.859E-02
.413	1.150	8.610E-03	2.461E-03	5.428E-03	1.016E+00	4.249E-03	6.292E-02
.398	1.200	3.646E-02	1.072E-02	2.259E-03	6.731E-01	5.200E-03	8.227E-02
.380	1.250	5.819E-02	4.411E-02	2.184E-04	2.718E-01	4.022E-03	7.146E-02
.359	1.300	5.219E-02	7.143E-02	3.192E-04	7.937E-02	1.877E-03	4.312E-02
.308	1.400	8.549E-03	2.105E-02	1.527E-03	2.256E-01	4.075E-04	5.071E-02
.174	1.600	7.567E-02	3.193E-01	5.530E-04	3.349E-02	1.656E-04	3.815E-02
.014	1.800	1.425E+03	1.399E+04	4.465E-04	5.861E-03	6.988E-04	1.144E+01
.228	2.000	4.195E-04	5.731E-02	1.380E-04	1.663E-02	8.850E-06	1.780E-02

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.178	.200	-12.2	87.3	.4	67.2	80.3	26.6
.215	.250	-18.2	87.6	.5	64.5	81.8	24.3
.250	.300	-25.9	87.6	.5	60.9	82.0	21.6
.282	.350	-35.8	87.5	.5	55.9	81.8	20.4
.311	.400	-48.5	87.7	.3	52.1	80.1	16.8
.337	.450	-64.2	87.0	.1	48.7	78.4	17.0
.361	.500	-81.7	85.6	-.2	45.7	76.5	18.6
.382	.550	-98.6	83.3	-.5	45.8	74.2	20.6
.399	.600	-112.8	80.0	-.9	46.0	71.4	22.9
.407	.650	-118.7	77.9	-1.1	45.5	69.8	24.1
.415	.700	-123.8	75.4	-1.4	47.2	68.0	25.4
.421	.750	-128.2	72.4	-1.6	48.2	66.1	26.7
.427	.800	-132.1	68.9	-1.9	49.4	64.1	28.1
.432	.850	-135.4	64.6	-2.1	51.1	61.8	29.6
.437	.900	-138.2	59.7	-2.4	53.1	59.4	31.1
.444	.950	-142.8	47.1	-2.5	58.9	54.0	34.5
.448	.980	-146.2	31.1	-1.7	58.6	47.4	38.7
.449	.990	-148.5	13.9	2.8	86.3	39.3	44.3
.447	.950	-149.8	-1.5	29.0	117.9	28.2	53.5
.443	1.000	-149.5	-12.6	122.0	154.2	10.1	74.9
.436	1.050	-145.8	-19.0	140.6	177.5	-30.6	147.4
.426	1.100	-120.2	-18.7	143.2	-169.0	-95.9	-162.5
.413	1.150	-4.5	15.1	142.8	-159.2	-129.6	-145.1
.398	1.200	11.1	120.4	142.8	-149.1	-148.0	-132.5
.380	1.250	17.1	132.9	155.3	-132.1	-163.5	-117.5
.359	1.300	23.9	138.9	-70.0	-84.2	177.7	-92.3
.308	1.400	100.1	173.7	-66.6	-3.0	63.3	-2.0
.174	1.600	-147.5	-48.8	94.4	160.5	-25.3	118.7
.014	1.800	22.2	87.4	-98.5	24.3	-166.2	176.8
.224	2.000	-102.5	-74.8	79.5	135.9	-92.4	107.1

REC = 19 HEADING = 45. DEG SHIP SPEED = 20. KNOTS

NE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
170	200	5.787E+00	7.365E-01	9.708E-01	3.050E-03	8.633E-04	9.128E-04
204	250	2.665E+00	8.064E-01	9.529E-01	8.111E-03	2.840E-03	2.197E-03
233	300	1.434E+00	8.636E-01	9.233E-01	1.830E-02	6.617E-03	4.798E-03
259	350	8.628E-01	9.129E-01	8.824E-01	4.006E-02	1.292E-02	1.033E-02
281	400	5.766E-01	9.473E-01	8.257E-01	7.889E-02	2.192E-02	2.095E-02
300	450	4.352E-01	9.883E-01	7.618E-01	1.500E-01	3.470E-02	4.786E-02
314	500	3.893E-01	9.809E-01	6.797E-01	2.688E-01	4.942E-02	8.666E-02
325	550	4.178E-01	9.286E-01	5.816E-01	4.238E-01	6.439E-02	1.383E-01
333	600	5.089E-01	8.300E-01	4.725E-01	6.158E-01	7.726E-02	2.017E-01
335	625	5.759E-01	7.818E-01	4.158E-01	7.108E-01	8.211E-02	2.365E-01
336	650	6.558E-01	7.212E-01	3.593E-01	8.032E-01	8.550E-02	2.721E-01
337	675	7.469E-01	6.587E-01	3.039E-01	8.771E-01	8.719E-02	3.070E-01
336	700	8.470E-01	5.973E-01	2.510E-01	9.275E-01	8.700E-02	3.397E-01
335	725	9.529E-01	5.403E-01	2.015E-01	9.474E-01	8.485E-02	3.680E-01
332	750	1.061E+00	4.911E-01	1.565E-01	9.322E-01	8.078E-02	3.899E-01
325	800	1.262E+00	4.269E-01	8.307E-02	7.937E-01	6.759E-02	4.065E-01
314	850	1.401E+00	4.187E-01	3.430E-02	5.459E-01	4.996E-02	3.769E-01
299	900	1.421E+00	4.569E-01	8.909E-02	2.797E-01	3.163E-02	3.020E-01
283	950	1.274E+00	5.050E-01	1.040E-03	9.415E-02	1.630E-02	2.027E-01
258	1.000	9.545E-01	5.816E-01	2.360E-03	4.934E-02	6.319E-03	9.757E-02
232	1.050	5.013E-01	5.526E-01	5.397E-03	1.212E-01	1.651E-03	1.916E-02
202	1.100	1.657E-01	3.589E-01	5.950E-03	2.332E-01	9.094E-04	1.524E-02
163	1.150	3.101E-01	9.603E-02	3.880E-03	2.866E-01	1.899E-03	1.045E-01
131	1.200	3.001E+00	3.670E-01	9.588E-04	2.328E-01	2.753E-03	2.569E-01
091	1.250	1.942E+01	4.548E+00	5.313E-05	1.087E-01	2.945E-03	3.584E-01
045	1.300	2.559E+02	9.318E+01	1.690E-03	1.157E-02	3.132E-03	5.574E-01
055	1.400	1.330E+01	2.998E+01	2.048E-03	9.198E-02	4.111E-04	4.745E-02
300	1.500	6.397E-03	5.107E-02	5.628E-04	7.779E-02	9.063E-05	2.478E-02
606	1.600	1.143E-04	4.221E-04	1.521E-04	8.982E-01	2.569E-04	1.052E-02
963	2.000	2.480E-06	1.325E-03	2.408E-05	5.748E-02	4.749E-04	5.852E-04

PHASE MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.173	.200	-12.1	86.0	.4	60.9	68.4	45.0
.204	.250	-18.1	86.4	.4	58.4	73.5	37.1
.233	.300	-28.7	86.4	.4	55.0	76.4	33.7
.259	.350	-35.5	86.1	.4	51.3	77.2	30.5
.281	.400	-47.9	85.5	.3	47.7	77.1	28.5
.300	.450	-63.1	84.6	-0.0	43.9	75.4	25.4
.314	.500	-80.0	82.8	-4.4	41.3	73.5	25.1
.325	.550	-96.5	80.0	-9.9	39.8	71.1	25.9
.333	.600	-110.4	75.8	-1.6	39.0	68.3	27.2
.335	.625	-116.2	73.1	-2.0	38.9	66.7	27.9
.336	.650	-121.3	69.9	-2.4	39.0	65.0	28.7
.337	.675	-125.7	66.0	-2.8	39.2	63.2	29.6
.336	.700	-129.4	61.3	-3.2	39.6	61.2	30.4
.335	.725	-132.6	55.7	-3.6	40.2	59.1	31.3
.332	.750	-135.3	49.2	-4.0	41.0	56.8	32.1
.325	.800	-139.6	33.5	-4.3	43.3	51.9	33.7
.314	.850	-142.5	15.6	-3.0	47.4	46.2	35.0
.293	.900	-144.2	-1.4	3.8	55.1	39.4	35.1
.280	.950	-144.5	-16.5	48.0	73.8	30.6	32.9
.258	1.000	-143.1	-28.5	124.2	130.7	16.8	30.3
.232	1.050	-137.3	-38.7	135.9	172.1	-13.1	13.5
.202	1.100	-109.0	-50.7	137.0	-174.4	-77.7	-97.6
.163	1.150	-1.5	-87.2	136.4	-168.5	-114.3	-118.5
.131	1.200	19.1	166.8	136.9	-165.3	-127.8	-122.2
.090	1.250	28.3	140.9	-98.0	-163.3	-132.2	-125.0
.045	1.300	37.8	121.5	-72.2	-166.8	-132.2	-143.3
.055	1.400	97.2	108.7	-82.2	7.8	171.3	156.9
.303	1.600	-160.0	-36.2	95.7	149.2	-52.4	129.7
.606	1.800	-4.9	80.2	-71.6	-29.4	91.2	-54.0
.969	2.000	-165.0	-66.9	-155.5	-66.3	-102.1	121.0

REC = 20

HEADING = 45. DEG
RAO (MOTION/WAVEHT)**2SHIP SPEED = 25. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	6.914E+00	8.820E-01	9.719E-01	3.446E-03	7.719E-04	7.896E-04
.192	.250	3.371E+00	1.015E+00	9.531E-01	9.170E-03	2.453E-03	1.725E-03
.216	.300	1.935E+00	1.150E+00	9.210E-01	2.134E-02	5.609E-03	3.549E-03
.236	.350	1.253E+00	1.294E+00	8.781E-01	4.502E-02	1.103E-02	7.781E-03
.252	.400	9.094E-01	1.438E+00	8.203E-01	8.741E-02	1.085E-02	1.606E-02
.262	.450	7.583E-01	1.576E+00	7.455E-01	1.566E-01	2.877E-02	3.063E-02
.269	.500	7.525E-01	1.704E+00	6.551E-01	2.591E-01	4.006E-02	5.483E-02
.269	.550	8.960E-01	1.815E+00	5.524E-01	3.948E-01	5.149E-02	9.260E-02
.266	.600	1.230E+00	1.906E+00	4.422E-01	5.516E-01	6.126E-02	1.476E-01
.263	.625	1.492E+00	1.944E+00	3.862E-01	6.300E-01	6.489E-02	1.823E-01
.268	.650	1.836E+00	1.980E+00	3.309E-01	7.024E-01	6.738E-02	2.215E-01
.252	.675	2.282E+00	2.017E+00	2.772E-01	7.631E-01	6.850E-02	2.646E-01
.243	.700	2.850E+00	2.062E+00	2.263E-01	8.066E-01	6.812E-02	3.103E-01
.237	.725	3.592E+00	2.123E+00	1.790E-01	8.277E-01	6.618E-02	3.565E-01
.228	.750	4.536E+00	2.212E+00	1.364E-01	8.218E-01	6.272E-02	3.999E-01
.206	.800	7.770E+00	2.544E+00	6.956E-02	7.401E-01	5.285E-02	4.864E-01
.180	.850	1.245E+01	3.304E+00	2.661E-02	5.598E-01	3.973E-02	5.293E-01
.149	.900	2.287E+01	5.104E+00	6.513E-03	3.339E-01	2.660E-02	5.133E-01
.112	.950	5.095E+01	9.902E+00	2.989E-03	1.257E-01	1.596E-02	4.282E-01
.072	1.000	1.810E+02	3.870E+01	7.819E-03	1.320E-02	9.229E-03	4.064E-01
.027	1.050	4.080E+03	1.961E+03	1.926E-02	1.597E-02	1.016E-02	2.063E+00
.023	1.100	1.612E+03	5.717E+03	1.745E-02	1.136E-01	6.811E-03	4.600E+00
.077	1.150	7.045E+00	1.560E+01	3.721E-03	2.403E-01	5.996E-04	1.752E-01
.136	1.200	2.572E+00	2.942E-01	7.405E-04	2.533E-01	2.137E-03	1.492E-01
.200	1.250	7.472E-01	4.386E-01	7.756E-05	1.363E-01	2.316E-03	1.047E-01
.268	1.300	1.660E-01	2.084E-01	6.276E-04	3.075E-02	1.243E-03	3.377E-02
.419	1.400	2.602E-03	9.110E-03	1.861E-03	6.398E-01	3.825E-04	3.595E-02
.775	1.600	1.886E-04	8.417E-03	3.296E-04	9.179E-01	4.204E-04	4.201E-04
1.207	1.800	1.834E-05	5.676E-04	9.569E-04	1.195E-02	6.624E-04	4.899E-04
1.711	2.000	4.583E-06	8.697E-05	2.707E-04	1.196E-03	1.232E-04	8.151E-05

PHASE (MOTION-HAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.163	.200	-12.0	84.6	.4	55.7	48.3	66.1
.192	.250	-18.0	85.0	.3	53.3	60.9	57.0
.216	.300	-25.5	85.2	.3	50.3	67.7	53.8
.236	.350	-35.2	84.8	.2	46.7	70.2	47.8
.252	.400	-47.3	84.1	-.1	43.3	71.0	43.9
.262	.450	-62.0	82.8	-.4	40.4	70.7	41.8
.268	.500	-78.1	81.0	-.8	37.9	69.5	40.6
.269	.550	-93.8	78.4	-1.5	35.9	67.6	40.0
.266	.600	-107.1	74.7	-2.2	34.3	65.1	40.0
.263	.625	-112.7	72.3	-2.7	33.6	63.6	40.2
.258	.650	-117.5	69.6	-3.1	33.1	62.1	40.4
.252	.675	-121.7	66.4	-3.6	32.6	60.4	40.8
.245	.700	-125.2	62.7	-4.0	32.2	58.7	41.3
.237	.725	-128.1	58.5	-4.2	31.8	57.0	41.9
.228	.750	-130.5	53.9	-4.4	31.6	55.4	42.5
.206	.800	-134.0	42.5	-3.8	31.2	51.5	43.9
.180	.850	-135.8	29.9	.4	31.0	48.2	45.4
.148	.900	-136.0	16.8	18.1	31.2	45.1	47.0
.112	.950	-134.0	3.9	81.1	31.6	44.4	47.5
.072	1.000	-130.1	-13.4	112.4	35.2	43.8	47.2
.027	1.050	-121.6	-39.5	108.5	-145.1	51.2	38.4
.023	1.100	-99.3	-64.8	101.5	-152.0	42.8	13.1
.077	1.150	-6.2	-83.9	120.3	-163.2	-78.0	-52.1
.136	1.200	19.0	179.6	136.2	-163.8	-122.6	-114.4
.200	1.250	24.3	137.1	-134.2	-158.0	-142.0	-123.3
.263	1.300	28.1	137.1	-77.1	-112.2	-162.4	-106.8
.419	1.400	99.0	-145.3	-62.0	-.2	52.6	2.7
.775	1.600	-175.9	-55.2	106.0	-65.2	-71.5	168.7
1.207	1.800	4.9	126.8	-115.0	135.3	143.2	-49.8
1.711	2.000	-129.3	-60.0	138.5	-57.8	-35.2	136.9

REC = 21 HEADING = 60. DEG SHIP SPEED = 5. KNOTS
RAO (NOTION/HAVENT)**2

ME	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	3.401E+00	7.776E-01	9.932E-01	4.021E-03	9.570E-04	1.189E-03
.242	.250	1.353E+00	7.703E-01	9.865E-01	1.077E-02	2.518E-03	2.413E-03
.289	.300	6.220E-01	7.945E-01	9.774E-01	2.541E-02	5.478E-03	5.385E-03
.334	.350	3.120E-01	8.940E-01	9.745E-01	5.728E-02	1.071E-02	1.284E-02
.379	.400	1.683E-01	8.967E-01	9.637E-01	1.260E-01	1.866E-02	2.133E-02
.423	.450	9.760E-02	8.489E-01	9.409E-01	2.732E-01	2.981E-02	3.137E-02
.467	.500	6.234E-02	7.784E-01	9.020E-01	5.911E-01	4.435E-02	4.348E-02
.513	.550	4.562E-02	7.030E-01	8.443E-01	1.294E+00	6.202E-02	5.793E-02
.553	.600	3.897E-02	6.376E-01	7.557E-01	2.913E+00	8.190E-02	7.441E-02
.574	.625	3.787E-02	6.131E-01	7.193E-01	4.434E+00	9.220E-02	8.278E-02
.595	.650	3.769E-02	5.958E-01	6.585E-01	6.787E+00	1.024E-01	8.998E-02
.615	.675	3.811E-02	5.834E-01	6.142E-01	1.029E+01	1.121E-01	9.345E-02
.636	.700	3.890E-02	5.654E-01	5.619E-01	1.476E+01	1.220E-01	8.818E-02
.656	.725	3.988E-02	5.168E-01	5.175E-01	1.841E+01	1.332E-01	6.974E-02
.676	.750	4.083E-02	4.254E-01	4.720E-01	1.916E+01	1.438E-01	4.513E-02
.716	.800	4.197E-02	2.255E-01	3.784E-01	1.313E+01	1.615E-01	1.937E-02
.755	.850	4.134E-02	1.092E-01	2.863E-01	7.024E+00	1.722E-01	2.140E-02
.794	.900	3.849E-02	5.060E-02	2.011E-01	3.525E+00	1.731E-01	2.576E-02
.832	.950	3.350E-02	2.135E-02	1.282E-01	1.660E+00	1.625E-01	2.550E-02
.869	1.000	2.693E-02	9.373E-03	7.211E-02	7.245E-01	1.402E-01	2.135E-02
.905	1.050	1.967E-02	7.717E-03	3.464E-02	3.406E-01	1.086E-01	1.448E-02
.941	1.100	1.273E-02	1.090E-02	1.473E-02	2.788E-01	7.287E-02	7.998E-03
.978	1.150	6.985E-03	1.453E-02	7.991E-03	3.691E-01	3.988E-02	3.238E-03
1.011	1.200	2.474E-03	1.518E-02	8.904E-03	4.471E-01	1.625E-02	6.870E-04
1.045	1.250	6.968E-04	1.257E-02	1.140E-02	4.646E-01	6.999E-03	3.684E-04
1.078	1.300	2.356E-05	8.169E-03	1.160E-02	3.996E-01	1.132E-02	1.245E-03
1.143	1.400	4.769E-04	1.489E-03	8.663E-03	1.430E-01	2.829E-02	2.412E-03
1.264	1.600	7.144E-05	2.122E-03	5.489E-03	5.390E-02	2.519E-03	8.068E-04
1.375	1.800	7.611E-05	8.446E-04	2.470E-03	5.222E-03	3.656E-03	5.391E-04
1.475	2.000	7.883E-06	3.175E-04	3.421E-04	4.755E-03	1.476E-03	3.432E-04

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	-9.7	89.4	.2	81.9	94.0	7.3
.242	.250	-14.2	89.5	.2	79.5	91.2	9.1
.285	.300	-19.8	90.0	.2	76.4	89.3	6.7
.334	.350	-26.9	91.1	.0	72.2	87.3	1.9
.379	.400	-35.9	91.2	-.2	68.7	85.9	4.2
.423	.450	-47.4	90.8	-.2	66.5	84.7	8.3
.467	.500	-61.5	90.0	-.1	65.8	83.5	13.1
.510	.550	-77.5	89.0	.2	67.4	82.1	18.5
.553	.600	-93.8	88.0	.5	72.5	80.6	25.3
.574	.625	-101.3	87.7	.7	77.0	79.7	29.7
.595	.650	-108.3	87.8	.9	83.5	78.8	35.2
.615	.675	-114.6	89.0	1.1	92.7	77.8	42.2
.636	.700	-120.2	92.0	1.4	105.6	76.7	51.0
.656	.725	-125.3	97.0	1.7	122.1	75.6	59.8
.676	.750	-129.8	102.2	2.2	139.5	74.4	64.7
.716	.800	-137.2	107.4	3.4	168.6	71.8	48.7
.755	.850	-143.0	104.8	5.2	-172.6	69.0	28.9
.794	.900	-147.6	97.0	7.9	-158.8	65.9	23.9
.832	.950	-151.5	82.5	12.2	-145.2	62.4	24.4
.863	1.000	-154.9	54.6	19.2	-126.9	58.5	26.9
.905	1.050	-158.0	16.6	31.3	-97.4	53.8	31.1
.941	1.100	-160.9	-8.3	53.7	-59.9	47.7	37.5
.975	1.150	-163.9	-19.8	91.6	-32.5	38.3	49.2
1.011	1.200	-167.1	-23.0	132.4	-15.6	20.3	76.6
1.045	1.250	-172.2	-22.1	160.6	-4.0	-24.0	161.2
1.078	1.300	154.7	-17.4	-175.6	5.0	-71.7	-160.1
1.1143	1.400	15.6	20.4	-115.0	25.1	-101.2	-132.6
1.264	1.600	8.7	143.9	-39.9	167.6	179.1	-26.9
1.375	1.800	158.1	-93.2	156.6	-90.7	58.0	80.2
1.475	2.000	-34.4	27.0	63.2	3.1	-100.6	-149.9

REC = 22

HEADING = 60. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	3.793E+00	8.198E-01	9.861E-01	3.962E-03	6.533E-04	1.366E-03
.234	.250	1.554E+00	8.253E-01	9.767E-01	1.056E-02	1.930E-03	2.550E-03
.276	.300	7.373E-01	8.242E-01	9.624E-01	2.457E-02	4.407E-03	4.830E-03
.318	.350	3.818E-01	9.438E-01	9.553E-01	5.270E-02	9.104E-03	1.402E-02
.353	.400	2.125E-01	9.774E-01	9.406E-01	1.115E-01	1.630E-02	2.502E-02
.397	.450	1.270E-01	9.526E-01	9.142E-01	2.311E-01	2.631E-02	3.791E-02
.434	.500	8.345E-02	8.945E-01	8.732E-01	4.676E-01	3.918E-02	5.343E-02
.471	.550	6.254E-02	8.195E-01	8.156E-01	9.235E-01	5.458E-02	7.192E-02
.505	.600	5.459E-02	7.393E-01	7.411E-01	1.781E+00	7.163E-02	9.306E-02
.522	.625	5.363E-02	7.000E-01	6.980E-01	2.452E+00	8.038E-02	1.043E-01
.539	.650	5.401E-02	6.626E-01	6.514E-01	3.354E+00	8.900E-02	1.155E-01
.555	.675	5.532E-02	6.276E-01	6.020E-01	4.550E+00	9.724E-02	1.262E-01
.571	.700	5.721E-02	5.952E-01	5.504E-01	6.108E+00	1.049E-01	1.357E-01
.587	.725	5.938E-02	5.645E-01	4.974E-01	8.076E+00	1.116E-01	1.427E-01
.602	.750	6.155E-02	5.334E-01	4.439E-01	1.044E+01	1.172E-01	1.457E-01
.632	.800	6.500E-02	4.522E-01	3.401E-01	1.541E+01	1.244E-01	1.320E-01
.660	.850	6.517E-02	3.158E-01	2.548E-01	1.650E+01	1.288E-01	8.988E-02
.687	.900	6.382E-02	1.625E-01	1.778E-01	1.268E+01	1.254E-01	5.057E-02
.713	.950	5.761E-02	5.872E-02	1.129E-01	7.429E+00	1.140E-01	3.118E-02
.737	1.000	4.810E-02	1.412E-02	6.305E-02	3.599E+00	9.547E-02	2.322E-02
.761	1.050	3.652E-02	7.390E-03	2.897E-02	1.629E+00	7.227E-02	1.750E-02
.782	1.100	2.462E-02	1.746E-02	9.641E-03	1.049E+00	4.808E-02	1.128E-02
.803	1.150	1.410E-02	2.966E-02	2.090E-03	1.246E+00	2.687E-02	5.370E-03
.822	1.200	6.332E-03	3.550E-02	2.220E-03	1.681E+00	1.220E-02	1.395E-03
.840	1.250	1.779E-03	3.248E-02	5.625E-03	1.958E+00	5.491E-03	9.949E-05
.856	1.300	1.134E-04	2.298E-02	8.685E-03	1.870E+00	5.811E-03	1.022E-03
.885	1.400	1.061E-03	4.551E-03	7.736E-03	8.530E-01	1.349E-02	3.980E-03
.928	1.600	2.443E-04	8.238E-03	4.614E-04	4.111E-01	2.980E-03	1.228E-03
.949	1.800	3.667E-04	3.580E-03	5.802E-04	9.455E-02	4.009E-03	1.801E-03
.950	2.000	1.928E-05	1.807E-03	1.780E-04	1.399E-01	1.551E-03	1.491E-03

PHASE (NOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	-9.6	88.5	.3	77.5	86.3	13.8
.234	.250	-14.1	88.7	.3	75.8	85.8	14.8
.276	.300	-19.7	88.8	.4	73.3	85.4	15.2
.318	.350	-26.7	90.1	.2	69.6	83.6	7.0
.358	.400	-35.7	90.2	.1	66.1	82.6	7.3
.397	.450	-47.0	89.8	-.0	63.6	81.7	9.9
.434	.500	-60.8	89.0	-.0	62.4	80.7	13.3
.471	.550	-76.7	87.9	-.0	62.8	79.3	17.2
.505	.600	-92.9	86.5	-.0	65.0	77.7	21.4
.522	.625	-100.5	85.7	.0	66.9	76.7	23.8
.539	.650	-107.5	84.9	.0	69.6	75.7	26.4
.555	.675	-113.9	84.2	.0	73.0	74.5	29.3
.571	.700	-119.6	83.6	.0	77.3	73.2	32.5
.587	.725	-124.7	83.4	.0	82.7	71.9	36.2
.602	.750	-129.2	83.7	-.0	89.4	70.4	40.4
.632	.800	-136.9	86.7	-.0	106.9	67.0	50.1
.660	.850	-143.1	92.8	.3	29.4	63.3	57.7
.687	.900	-148.1	97.2	.8	152.0	59.0	57.1
.713	.950	-152.4	95.1	1.9	173.3	54.0	48.0
.737	1.000	-156.1	75.0	4.0	164.4	48.3	38.0
.761	1.050	-159.6	14.5	8.4	-134.9	41.4	31.8
.782	1.100	-162.9	-18.6	18.7	-94.9	32.6	28.4
.803	1.150	-166.4	-27.5	53.5	-59.9	20.4	25.6
.822	1.200	-170.5	-29.5	123.3	-38.6	.2	19.0
.840	1.250	-176.7	-28.2	149.3	-24.9	-38.3	-53.0
.856	1.300	158.2	-23.6	159.1	-14.5	-87.6	-122.3
.885	1.400	10.1	10.2	171.3	7.6	-137.2	-121.8
.928	1.600	-5.1	139.8	-74.1	145.6	134.0	-37.3
.949	1.800	139.9	-100.6	-18.3	-125.3	-9.4	73.2
.950	2.000	-56.0	12.8	117.3	-10.4	-169.6	-153.0

REC = 23

HEADING = 60. DEG
SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	4.244E+00	8.753E-01	9.801E-01	4.030E-03	4.314E-04	1.277E-03
.225	.250	1.793E+00	8.974E-01	9.681E-01	1.070E-02	1.440E-03	2.258E-03
.265	.300	8.782E-01	9.224E-01	9.527E-01	2.455E-02	3.561E-03	4.627E-03
.302	.350	4.723E-01	1.006E+00	9.376E-01	5.148E-02	7.553E-03	1.280E-02
.337	.400	2.724E-01	1.071E+00	9.197E-01	1.050E-01	1.403E-02	2.636E-02
.370	.450	1.688E-01	1.075E+00	8.901E-01	2.096E-01	2.301E-02	4.276E-02
.402	.500	1.147E-01	1.038E+00	8.467E-01	4.032E-01	3.446E-02	6.294E-02
.431	.550	8.868E-02	9.725E-01	7.885E-01	7.435E-01	4.802E-02	8.763E-02
.458	.600	7.963E-02	8.889E-01	7.157E-01	1.305E+00	6.286E-02	1.168E-01
.471	.625	7.938E-02	8.427E-01	6.744E-01	1.696E+00	7.041E-02	1.328E-01
.484	.650	8.116E-02	7.946E-01	6.302E-01	2.173E+00	7.781E-02	1.494E-01
.495	.675	8.448E-02	7.453E-01	5.837E-01	2.745E+00	8.484E-02	1.662E-01
.507	.700	8.889E-02	6.955E-01	5.355E-01	3.414E+00	9.130E-02	1.828E-01
.518	.725	9.396E-02	6.455E-01	4.861E-01	4.175E+00	9.698E-02	1.986E-01
.528	.750	9.929E-02	5.956E-01	4.364E-01	5.013E+00	1.017E-01	2.129E-01
.543	.800	1.092E-01	4.966E-01	3.383E-01	6.805E+00	1.073E-01	2.339E-01
.565	.850	1.159E-01	3.980E-01	2.471E-01	8.407E+00	1.071E-01	2.395E-01
.581	.900	1.163E-01	2.991E-01	1.675E-01	9.271E+00	1.006E-01	2.249E-01
.595	.950	1.108E-01	2.021E-01	1.009E-01	8.920E+00	8.814E-02	1.893E-01
.606	1.000	9.754E-02	1.152E-01	5.531E-02	7.336E+00	7.134E-02	1.380E-01
.616	1.050	7.850E-02	5.019E-02	2.410E-02	5.229E+00	5.243E-02	8.210E-02
.623	1.100	5.644E-02	1.659E-02	7.120E-03	3.851E+00	3.418E-02	3.497E-02
.629	1.150	3.483E-02	1.400E-02	7.124E-04	4.304E+00	1.905E-02	7.148E-03
.633	1.200	1.711E-02	3.087E-02	7.177E-04	6.724E+00	8.837E-03	3.097E-03
.635	1.250	5.584E-03	4.859E-02	3.202E-03	1.014E+01	3.881E-03	1.941E-02
.634	1.300	6.876E-04	5.274E-02	5.180E-03	1.263E+01	3.181E-03	4.505E-02
.629	1.400	3.037E-03	2.067E-02	3.682E-03	9.785E+00	5.936E-03	7.148E-02
.592	1.600	1.105E-03	8.362E-03	5.509E-04	2.524E+00	1.264E-03	1.910E-02
.524	1.800	1.746E-03	1.273E-02	1.195E-04	5.903E-01	1.098E-03	3.126E-02
.425	2.000	2.126E-04	8.989E-03	1.719E-04	4.820E-01	3.249E-04	4.782E-02

PHASE (MOTION-HAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.184	.200	-9.6	87.5	.4	71.9	72.9	22.9
.225	.250	-14.0	87.9	.4	70.7	77.7	23.4
.265	.300	-19.6	88.0	.4	68.6	79.1	20.8
.302	.350	-26.6	88.7	.3	65.2	78.9	13.9
.337	.400	-35.4	89.0	.2	61.6	78.4	11.7
.370	.450	-46.5	88.6	.0	59.0	77.9	12.8
.402	.500	-60.2	87.8	-.1	57.3	77.1	15.0
.431	.550	-75.8	86.5	-.3	56.7	75.9	17.7
.458	.600	-91.8	84.8	-.6	57.2	74.2	20.5
.471	.625	-99.4	83.8	-.8	57.9	73.2	22.0
.484	.650	-106.4	82.7	-.9	58.8	72.1	23.5
.496	.675	-112.9	81.5	-1.2	60.0	70.8	25.1
.507	.700	-118.6	80.1	-1.4	61.6	69.4	26.7
.518	.725	-123.8	78.6	-1.7	63.4	67.9	28.4
.529	.750	-128.3	77.1	-2.0	65.6	66.3	30.1
.543	.800	-136.1	73.8	-2.8	70.8	62.6	33.9
.565	.850	-142.4	70.4	-3.7	77.6	58.4	37.9
.581	.900	-147.7	66.9	-4.7	86.0	53.5	42.4
.595	.950	-152.2	63.0	-5.7	96.6	47.8	47.1
.606	1.000	-156.3	57.5	-6.6	110.7	41.3	52.3
.616	1.050	-160.1	46.8	-6.9	131.1	33.5	58.2
.623	1.100	-164.0	18.0	-5.0	161.6	23.8	66.5
.629	1.150	-168.1	-38.1	13.1	-152.4	10.8	87.2
.633	1.200	-173.2	-67.5	131.8	-135.1	-9.0	-170.8
.635	1.250	178.4	-79.0	145.3	-118.8	-43.8	-136.3
.634	1.300	149.8	-86.0	145.7	-109.0	-91.8	-128.0
.628	1.400	17.3	-102.5	139.9	-96.0	-149.4	-118.9
.592	1.500	-8.5	97.2	-50.4	16.2	113.4	-21.1
.524	1.600	138.7	-65.9	-132.3	58.8	-32.8	54.6
.425	2.000	31.6	81.0	53.5	-178.2	161.6	-172.1

REC = 24

HEADING = 60. DEG
SHIP SPEED = 20. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	4.763E+00	9.539E-01	9.766E-01	4.274E-03	3.310E-04	1.059E-03
.217	.250	2.079E+00	1.007E+00	9.634E-01	1.126E-02	1.135E-03	1.889E-03
.253	.300	1.055E+00	1.057E+00	9.463E-01	2.575E-02	2.933E-03	3.984E-03
.286	.350	5.913E-01	1.109E+00	9.226E-01	5.371E-02	6.125E-03	8.962E-03
.316	.400	3.551E-01	1.206E+00	9.022E-01	1.065E-01	1.193E-02	2.361E-02
.344	.450	2.294E-01	1.245E+00	8.699E-01	2.057E-01	1.997E-02	4.298E-02
.369	.500	1.626E-01	1.237E+00	8.242E-01	3.806E-01	3.018E-02	6.804E-02
.391	.550	1.308E-01	1.192E+00	7.647E-01	6.674E-01	4.218E-02	1.001E-01
.411	.600	1.219E-01	1.117E+00	6.921E-01	1.101E+00	5.521E-02	1.400E-01
.420	.625	1.238E-01	1.089E+00	6.513E-01	1.381E+00	6.179E-02	1.628E-01
.428	.650	1.291E-01	1.016E+00	6.082E-01	1.701E+00	6.819E-02	1.872E-01
.436	.675	1.372E-01	9.588E-01	5.630E-01	2.059E+00	7.424E-02	2.129E-01
.443	.700	1.477E-01	8.975E-01	5.163E-01	2.445E+00	7.976E-02	2.394E-01
.449	.725	1.599E-01	8.334E-01	4.687E-01	2.846E+00	8.454E-02	2.661E-01
.455	.750	1.733E-01	7.675E-01	4.208E-01	3.245E+00	8.842E-02	2.920E-01
.464	.800	2.014E-01	6.363E-01	3.265E-01	3.943E+00	9.283E-02	3.382E-01
.471	.850	2.689E-01	5.069E-01	2.384E-01	4.333E+00	9.199E-02	3.692E-01
.475	.900	2.444E-01	3.945E-01	1.612E-01	4.243E+00	8.558E-02	3.763E-01
.476	.950	2.493E-01	3.047E-01	9.833E-02	3.622E+00	7.410E-02	3.533E-01
.475	1.000	2.368E-01	2.418E-01	5.180E-02	2.621E+00	5.901E-02	2.995E-01
.471	1.050	2.070E-01	2.043E-01	2.153E-02	1.564E+00	4.239E-02	2.217E-01
.465	1.100	1.626E-01	1.627E-01	5.568E-03	8.258E-01	2.673E-02	1.352E-01
.455	1.150	1.100E-01	1.637E-01	2.323E-04	6.371E-01	1.412E-02	5.974E-02
.444	1.200	5.944E-02	1.333E-01	1.051E-03	9.597E-01	5.927E-03	1.537E-02
.430	1.250	2.092E-02	8.609E-02	3.740E-03	1.499E+00	2.107E-03	1.320E-02
.413	1.300	2.598E-03	3.330E-02	5.299E-03	1.853E+03	1.536E-03	4.973E-02
.371	1.400	2.486E-02	2.049E-02	2.690E-03	1.327E+00	3.059E-03	1.464E-01
.256	1.600	1.635E-02	2.416E-01	1.042E-03	8.294E-02	2.143E-04	1.009E-02
.099	1.800	1.331E+00	7.551E+00	1.176E-04	8.678E-02	1.860E-04	3.807E-01
.099	2.000	5.064E-01	1.243E+00	2.067E-04	1.618E-01	1.102E-05	2.663E-01

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.179	.200	-9.5	86.3	.4	65.7	50.1	35.6
.217	.250	-13.9	86.9	.4	65.0	64.2	34.1
.233	.300	-19.5	87.1	.4	62.9	69.8	29.5
.286	.350	-26.4	87.3	.3	59.8	72.6	25.0
.316	.400	-35.1	87.5	.1	55.7	72.9	18.5
.344	.450	-46.0	87.0	-1	52.6	72.9	17.7
.363	.500	-59.4	86.1	-4	50.3	72.4	18.7
.391	.550	-74.7	84.7	-8	48.9	71.4	20.2
.411	.600	-90.5	82.8	-13	48.2	69.8	22.1
.420	.625	-98.0	81.6	-16	48.1	68.8	23.0
.423	.650	-105.0	80.2	-19	48.1	67.6	24.0
.436	.675	-111.4	78.7	-23	48.3	66.3	24.9
.443	.700	-117.1	76.9	-28	48.6	64.9	25.9
.449	.725	-122.3	74.9	-33	49.0	63.3	26.9
.455	.750	-126.9	72.6	-39	49.5	61.6	27.9
.464	.800	-134.7	67.2	-53	51.0	57.8	29.9
.471	.850	-140.9	60.2	-59	53.0	53.4	31.9
.475	.900	-146.1	51.2	-8.8	55.7	48.4	34.1
.475	.950	-150.5	39.8	-10.9	59.7	42.8	36.5
.475	1.000	-154.4	26.0	-13.2	66.1	36.3	39.4
.471	1.050	-158.0	10.8	-15.5	77.6	28.7	43.0
.465	1.100	-161.5	-3.9	-16.5	100.3	19.6	48.4
.455	1.150	-165.3	-16.5	-2	137.8	7.5	58.4
.444	1.200	-170.1	-26.5	139.0	168.7	-10.9	87.3
.430	1.250	-178.6	-34.4	139.9	-175.2	-45.8	166.8
.413	1.300	148.2	-41.9	135.9	-166.6	-100.0	-160.1
.371	1.400	24.8	145.9	122.8	-156.6	-157.1	-140.0
.356	1.600	16.8	126.5	-63.0	-14.0	134.3	-74.8
.099	1.800	-166.1	-71.6	146.6	-8.7	42.0	25.0
.099	2.000	19.2	113.2	42.9	165.2	-34.3	-162.0

REC = 25		HEADING = 60. DEG		SHIP SPEED = 25. KNOTS			
		RAO (MOTION/NAVEHT)**2					
WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.174	.200	5.365E+00	1.063E+00	9.775E-01	4.688E-03	4.225E-04	8.668E-04
.209	.250	2.424E+00	1.160E+00	9.647E-01	1.222E-02	1.130E-03	1.590E-03
.241	.300	1.279E+00	1.250E+00	9.454E-01	2.787E-02	2.647E-03	3.125E-03
.270	.350	7.484E-01	1.328E+00	9.179E-01	5.801E-02	5.302E-03	6.048E-03
.295	.400	4.723E-01	1.437E+00	8.898E-01	1.136E-01	1.011E-02	1.636E-02
.317	.450	3.207E-01	1.528E+00	8.553E-01	2.145E-01	1.730E-02	3.561E-02
.336	.500	2.393E-01	1.575E+00	8.076E-01	3.842E-01	2.639E-02	6.267E-02
.352	.550	2.025E-01	1.580E+00	7.464E-01	6.479E-01	3.700E-02	9.947E-02
.364	.600	1.983E-01	1.543E+00	6.727E-01	1.021E+00	4.841E-02	1.479E-01
.369	.625	2.066E-01	1.510E+00	6.317E-01	1.249E+00	5.411E-02	1.768E-01
.373	.650	2.212E-01	1.467E+00	5.895E-01	1.499E+00	5.961E-02	2.089E-01
.376	.675	2.413E-01	1.416E+00	5.432E-01	1.764E+00	6.475E-02	2.439E-01
.378	.700	2.681E-01	1.356E+00	4.968E-01	2.037E+00	6.936E-02	2.815E-01
.380	.725	2.997E-01	1.291E+00	4.493E-01	2.304E+00	7.328E-02	3.212E-01
.381	.750	3.364E-01	1.220E+00	4.017E-01	2.552E+00	7.633E-02	3.621E-01
.386	.800	4.225E-01	1.069E+00	3.280E-01	2.927E+00	7.931E-02	4.432E-01
.376	.850	5.202E-01	9.250E-01	2.209E-01	3.047E+00	7.752E-02	5.140E-01
.359	.900	6.193E-01	8.083E-01	1.452E-01	2.843E+00	7.082E-02	5.607E-01
.353	.950	7.082E-01	7.402E-01	8.449E-02	2.330E+00	5.990E-02	5.696E-01
.344	1.000	7.676E-01	7.332E-01	4.108E-02	1.625E+00	4.629E-02	5.310E-01
.327	1.050	7.791E-01	7.819E-01	1.462E-02	9.075E-01	3.205E-02	4.451E-01
.306	1.100	7.243E-01	8.609E-01	2.514E-03	3.616E-01	1.939E-02	3.285E-01
.282	1.150	5.909E-01	9.444E-01	1.210E-04	8.638E-02	9.869E-03	2.151E-01
.255	1.200	3.990E-01	1.117E+00	2.203E-03	8.510E-02	4.609E-03	1.056E-01
.225	1.250	1.663E-01	1.263E+00	4.715E-03	2.649E-01	1.105E-03	3.414E-02
.191	1.300	9.021E-03	1.414E+00	5.409E-03	4.968E-01	2.338E-04	3.747E-02
.114	1.400	3.499E+00	4.248E+00	1.600E-03	5.879E-01	4.492E-04	2.528E-01
.080	1.600	3.297E+00	2.609E+01	2.731E-03	3.334E-02	9.440E-04	1.345E-01
.326	1.800	7.138E-03	1.442E-01	1.035E-04	1.679E-01	3.278E-04	5.272E-02
.624	2.000	8.734E-06	4.682E-03	2.249E-04	3.823E+00	4.289E-04	2.630E-02

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.174	.200	-9.5	85.0	.3	60.4	23.2	52.3
.209	.250	-13.9	85.7	.3	59.8	45.4	47.6
.241	.300	-19.4	86.0	.2	57.8	56.9	43.1
.270	.350	-26.3	86.0	.1	55.2	63.0	39.8
.295	.400	-34.8	85.9	-.0	51.2	65.5	30.5
.317	.450	-45.5	85.3	-.3	47.6	66.4	26.4
.336	.500	-59.5	84.3	-.7	45.0	66.4	25.6
.352	.550	-73.5	82.7	-1.3	43.2	65.6	26.1
.364	.600	-88.8	80.6	-2.0	41.9	64.1	27.0
.369	.625	-96.2	79.2	-2.5	41.4	63.1	27.6
.373	.650	-103.0	77.7	-3.0	41.0	62.0	28.2
.376	.675	-109.3	75.9	-3.5	40.7	60.7	28.9
.373	.700	-115.0	73.9	-4.2	40.5	59.2	29.5
.380	.725	-120.1	71.6	-4.9	40.4	57.7	30.2
.381	.750	-124.6	68.9	-5.6	40.3	56.0	30.9
.380	.800	-132.2	62.3	-7.4	40.3	52.2	32.3
.376	.850	-139.2	53.7	-9.5	40.6	47.9	33.8
.369	.900	-143.1	42.7	-11.8	41.3	43.2	35.2
.358	.950	-147.1	29.3	-14.3	42.6	38.0	36.6
.344	1.000	-150.4	14.5	-15.7	44.7	32.3	37.7
.327	1.050	-153.1	-.3	-18.5	48.8	26.1	38.1
.306	1.100	-155.5	-14.4	-16.5	57.6	19.1	36.8
.282	1.150	-157.7	-28.8	100.9	84.3	10.8	31.4
.255	1.200	-160.4	-42.0	134.2	154.9	-.2	23.7
.225	1.250	-165.2	-56.2	132.3	-178.2	-18.6	-4.3
.191	1.300	141.8	-73.9	127.0	-170.8	-64.8	-70.8
.114	1.400	32.5	-121.1	109.3	-167.8	-127.6	-96.6
.080	1.600	46.5	100.4	-77.9	14.5	-131.3	175.0
.326	1.800	157.1	-64.3	-162.7	21.8	-35.1	48.5
.624	2.000	16.8	-176.2	83.6	-129.7	165.4	-146.7

REC = 26

HEADING = 75. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.197	.200	3.247E+00	9.629E-01	9.961E-01	4.998E-03	1.920E-04	5.442E-04
.246	.250	1.283E+00	9.327E-01	9.934E-01	1.328E-02	5.530E-04	9.418E-04
.294	.300	5.879E-01	9.900E-01	9.932E-01	3.059E-02	1.302E-03	2.285E-03
.342	.350	2.958E-01	1.107E+00	1.003E+00	6.561E-02	2.739E-03	5.277E-03
.389	.400	1.594E-01	1.114E+00	1.011E+00	1.370E-01	5.000E-03	7.926E-03
.436	.450	9.034E-02	1.068E+00	1.014E+00	2.849E-01	8.292E-03	1.077E-02
.483	.500	5.339E-02	1.002E+00	1.009E+00	6.043E-01	1.279E-02	1.438E-02
.529	.550	3.293E-02	9.381E-01	9.891E-01	1.346E+00	1.863E-02	1.914E-02
.576	.600	2.145E-02	8.939E-01	9.548E-01	3.245E+00	2.584E-02	2.501E-02
.598	.625	1.778E-02	8.842E-01	9.310E-01	5.189E+00	2.995E-02	2.770E-02
.621	.650	1.508E-02	8.789E-01	9.024E-01	8.263E+00	3.434E-02	2.868E-02
.644	.675	1.297E-02	8.677E-01	8.856E-01	1.231E+01	3.985E-02	2.547E-02
.667	.700	1.145E-02	8.086E-01	8.753E-01	1.536E+01	4.641E-02	1.621E-02
.689	.725	1.045E-02	7.003E-01	8.637E-01	1.539E+01	5.372E-02	2.234E-03
.712	.750	9.839E-03	5.902E-01	8.506E-01	1.317E+01	6.180E-02	2.485E-03
.757	.800	9.441E-03	4.406E-01	8.188E-01	8.352E+00	8.045E-02	6.309E-03
.801	.850	9.609E-03	3.503E-01	7.783E-01	5.441E+00	1.025E-01	1.449E-02
.845	.900	1.006E-02	2.815E-01	7.273E-01	3.762E+00	1.278E-01	2.161E-02
.889	.950	1.053E-02	2.222E-01	6.642E-01	2.701E+00	1.559E-01	2.677E-02
.932	1.000	1.082E-02	1.700E-01	5.884E-01	1.970E+00	1.851E-01	2.986E-02
.975	1.050	1.084E-02	1.245E-01	5.005E-01	1.431E+00	2.131E-01	3.094E-02
1.018	1.100	1.037E-02	8.417E-02	4.055E-01	1.033E+00	2.404E-01	3.021E-02
1.050	1.150	9.497E-03	5.337E-02	3.060E-01	7.171E-01	2.594E-01	2.795E-02
1.102	1.200	8.310E-03	3.152E-02	2.076E-01	4.693E-01	2.621E-01	2.443E-02
1.144	1.250	6.919E-03	1.718E-02	1.235E-01	2.786E-01	2.431E-01	1.999E-02
1.185	1.300	5.502E-03	9.074E-03	6.573E-02	1.438E-01	2.045E-01	1.516E-02
1.267	1.400	3.087E-03	5.205E-03	2.555E-02	1.401E-02	1.082E-01	6.229E-03
1.426	1.600	4.501E-04	8.037E-03	2.472E-02	5.107E-02	1.031E-02	7.575E-05
1.580	1.800	3.049E-05	1.387E-03	5.316E-03	4.212E-02	6.731E-03	1.699E-03
1.728	2.000	5.260E-05	3.880E-04	4.968E-04	3.030E-04	3.320E-03	2.542E-04

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.197	.200	-6.7	89.3	.2	85.2	99.5	7.0
.245	.250	-9.4	89.5	.2	84.4	93.6	10.2
.294	.300	-12.7	90.3	.1	83.2	90.3	2.0
.342	.350	-16.6	91.1	-.1	81.6	87.8	-5.7
.389	.400	-21.4	91.1	-.2	80.1	86.7	-2.3
.435	.450	-27.3	90.8	-.2	79.1	86.1	4.2
.483	.500	-34.5	90.4	-.1	79.3	85.4	12.1
.529	.550	-43.3	89.9	.1	81.9	84.7	21.3
.576	.600	-54.0	89.8	.4	88.8	83.9	33.4
.598	.625	-60.1	90.3	.5	95.4	83.5	41.8
.621	.650	-66.5	91.7	.7	105.4	82.9	52.9
.644	.675	-73.4	94.9	.9	120.1	82.5	66.5
.667	.700	-80.7	99.1	1.1	137.7	82.0	79.3
.689	.725	-88.0	102.3	1.4	154.8	81.5	82.8
.712	.750	-95.1	103.5	1.7	168.5	81.0	57.2
.737	.800	-108.2	102.4	2.6	-174.8	80.0	3.8
.801	.850	-119.3	100.1	3.8	-156.9	79.1	.7
.845	.900	-128.3	97.9	5.5	-163.1	78.3	2.0
.889	.950	-135.5	95.7	7.7	-161.2	77.7	3.5
.932	1.000	-141.5	93.5	10.6	-150.3	77.3	4.8
.975	1.050	-146.5	90.9	14.4	-159.9	77.3	6.0
1.018	1.100	-150.5	88.1	20.7	-158.5	78.5	8.5
1.060	1.150	-154.1	84.1	29.5	-157.2	80.5	10.7
1.102	1.200	-157.3	78.0	41.0	-155.9	83.2	12.5
1.144	1.250	-160.8	68.1	56.4	-154.4	86.1	14.0
1.185	1.300	-164.7	51.7	77.0	-152.2	88.6	15.2
1.227	1.400	-174.3	-.9	135.6	-134.2	89.3	17.6
1.269	1.500	156.0	-45.6	-166.9	1.3	50.0	175.4
1.311	1.600	45.1	-50.7	-177.6	-.5	-43.7	-160.6
1.353	1.700	-27.5	109.0	67.8	-42.0	-93.9	-139.1

REC = 27 HEADING = 75. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/NAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	3.431E+00	9.614E-01	9.894E-01	4.917E-03	7.807E-05	7.745E-04
.242	.250	1.375E+00	9.619E-01	9.849E-01	1.305E-02	3.272E-04	1.140E-03
.288	.300	6.400E-01	9.977E-01	9.811E-01	2.969E-02	9.100E-04	2.404E-03
.333	.350	3.266E-01	1.133E+00	9.890E-01	6.139E-02	2.215E-03	6.367E-03
.378	.400	1.786E-01	1.160E+00	9.944E-01	1.254E-01	4.306E-03	9.642E-03
.422	.450	1.027E-01	1.131E+00	9.945E-01	2.535E-01	7.342E-03	1.282E-02
.466	.500	6.158E-02	1.076E+00	9.865E-01	5.152E-01	1.145E-02	1.659E-02
.509	.550	3.849E-02	1.015E+00	9.674E-01	1.063E+00	1.669E-02	2.137E-02
.551	.600	2.537E-02	9.631E-01	9.350E-01	2.249E+00	2.307E-02	2.707E-02
.572	.625	2.114E-02	9.437E-01	9.132E-01	3.294E+00	2.667E-02	2.987E-02
.593	.650	1.800E-02	9.286E-01	8.876E-01	4.801E+00	3.050E-02	3.200E-02
.613	.675	1.571E-02	9.138E-01	8.583E-01	6.834E+00	3.455E-02	3.245E-02
.633	.700	1.404E-02	8.919E-01	8.293E-01	9.216E+00	3.907E-02	3.016E-02
.654	.725	1.280E-02	8.551E-01	8.153E-01	1.129E+01	4.506E-02	2.489E-02
.674	.750	1.205E-02	7.874E-01	7.995E-01	1.226E+01	5.159E-02	1.780E-02
.713	.800	1.152E-02	6.153E-01	7.633E-01	1.036E+01	6.624E-02	9.558E-03
.752	.850	1.181E-02	4.720E-01	7.220E-01	8.149E+00	8.321E-02	1.200E-02
.790	.900	1.248E-02	3.657E-01	6.737E-01	5.969E+00	1.020E-01	1.853E-02
.827	.950	1.322E-02	2.817E-01	6.188E-01	4.411E+00	1.221E-01	2.505E-02
.864	1.000	1.381E-02	2.120E-01	5.575E-01	3.281E+00	1.428E-01	3.000E-02
.900	1.050	1.412E-02	1.534E-01	4.907E-01	2.425E+00	1.627E-01	3.289E-02
.936	1.100	1.405E-02	1.053E-01	4.200E-01	1.757E+00	1.804E-01	3.358E-02
.970	1.150	1.356E-02	6.704E-02	3.475E-01	1.226E+00	1.936E-01	3.220E-02
1.004	1.200	1.251E-02	3.878E-02	2.779E-01	8.159E-01	2.014E-01	2.901E-02
1.038	1.250	1.106E-02	2.040E-02	2.134E-01	4.990E-01	2.011E-01	2.444E-02
1.070	1.300	9.377E-03	1.038E-02	1.573E-01	2.692E-01	1.903E-01	1.909E-02
1.134	1.400	5.841E-03	6.809E-03	8.054E-02	3.811E-02	1.377E-01	8.503E-03
1.252	1.600	1.111E-03	1.325E-02	3.159E-02	1.005E-01	2.011E-02	1.602E-04
1.360	1.800	5.888E-05	2.727E-03	3.143E-03	8.795E-02	1.013E-02	3.045E-03
1.456	2.000	1.349E-04	8.116E-04	2.644E-03	1.950E-05	9.230E-03	6.500E-04

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.195	.200	-6.6	88.6	.3	81.8	78.2	12.2
.242	.250	-9.3	88.8	.3	81.7	79.5	14.6
.288	.300	-12.6	89.4	.3	81.1	79.9	9.9
.333	.350	-16.5	90.5	.1	80.3	79.0	-5.5
.378	.400	-21.3	90.5	-0	79.2	79.4	.7
.422	.450	-27.1	90.3	-0	78.4	80.0	5.5
.465	.500	-34.3	89.8	.0	78.7	80.3	11.8
.509	.550	-43.1	89.2	.1	80.6	80.2	19.1
.551	.600	-53.7	88.8	.3	86.0	79.8	27.9
.572	.625	-59.7	88.8	.3	90.4	79.4	33.3
.593	.650	-66.1	89.2	.4	96.6	79.0	39.5
.613	.675	-72.8	90.1	.4	104.8	78.5	46.8
.633	.700	-79.7	91.9	.5	115.4	77.9	54.8
.654	.725	-87.0	94.7	.6	127.9	77.4	61.2
.674	.750	-94.2	97.2	.8	140.3	76.9	63.3
.713	.800	-107.5	100.1	1.2	161.0	75.7	46.5
.752	.850	-119.0	100.1	1.9	174.0	74.4	23.5
.790	.900	-128.4	98.8	2.7	-178.3	73.0	14.7
.827	.950	-136.1	95.9	3.9	-173.7	71.5	12.1
.864	1.000	-142.6	94.6	5.5	-170.8	69.9	11.5
.900	1.050	-148.1	91.9	7.7	-168.8	68.4	11.7
.936	1.100	-153.0	88.6	10.6	-167.2	66.9	12.3
.970	1.150	-157.5	84.2	14.3	-165.6	65.4	13.1
1.004	1.200	-161.5	77.9	20.0	-163.3	64.5	14.8
1.038	1.250	-165.4	67.3	28.1	-160.4	63.9	16.7
1.070	1.300	-169.2	49.1	38.6	-156.3	63.5	18.4
1.104	1.400	-177.6	-8.1	68.3	-131.8	62.1	22.5
1.134	1.400	156.6	-49.8	133.6	-9.0	39.2	153.2
1.252	1.600	66.3	-52.6	157.5	-4.3	-70.3	-161.4
1.360	1.800	-28.0	100.0	-20.2	13.7	-114.0	-130.0
1.456	2.000						

REC = 28

HEADING = 75. DEG
RAO (MOTION/NAVENT)**2

SHIP SPEED = 15. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	3.629E+00	9.828E-01	9.841E-01	4.905E-03	5.536E-05	8.800E-04
.250	.250	1.476E+00	9.957E-01	9.779E-01	1.298E-02	2.209E-04	1.188E-03
.282	.300	6.979E-01	1.012E+00	9.708E-01	2.954E-02	6.538E-04	2.063E-03
.325	.350	3.617E-01	1.158E+00	9.776E-01	5.857E-02	1.862E-03	6.886E-03
.367	.400	2.009E-01	1.207E+00	9.813E-01	1.167E-01	3.822E-03	1.092E-02
.403	.450	1.174E-01	1.197E+00	9.795E-01	2.305E-01	6.658E-03	1.455E-02
.449	.500	7.146E-02	1.157E+00	9.699E-01	4.503E-01	1.046E-02	1.861E-02
.488	.550	4.534E-02	1.105E+00	9.504E-01	8.723E-01	1.528E-02	2.358E-02
.527	.600	3.030E-02	1.052E+00	9.193E-01	1.672E+00	2.109E-02	2.943E-02
.545	.625	2.541E-02	1.028E+00	8.992E-01	2.296E+00	2.434E-02	3.248E-02
.564	.650	2.176E-02	1.006E+00	8.759E-01	3.122E+00	2.781E-02	3.529E-02
.582	.675	1.911E-02	9.847E-01	8.497E-01	4.171E+00	3.147E-02	3.747E-02
.600	.700	1.720E-02	9.614E-01	8.204E-01	5.424E+00	3.530E-02	3.853E-02
.618	.725	1.591E-02	9.321E-01	7.885E-01	6.783E+00	3.927E-02	3.798E-02
.635	.750	1.506E-02	8.961E-01	7.601E-01	8.065E+00	4.388E-02	3.606E-02
.670	.800	1.443E-02	7.934E-01	7.209E-01	9.542E+00	5.594E-02	2.989E-02
.703	.850	1.487E-02	6.542E-01	6.771E-01	9.237E+00	6.941E-02	2.503E-02
.735	.900	1.586E-02	5.171E-01	6.290E-01	7.982E+00	8.394E-02	2.501E-02
.765	.950	1.702E-02	3.976E-01	5.769E-01	6.537E+00	9.905E-02	2.825E-02
.796	1.000	1.805E-02	2.971E-01	5.215E-01	5.208E+00	1.140E-01	3.237E-02
.825	1.050	1.877E-02	2.136E-01	4.635E-01	4.048E+00	1.279E-01	3.572E-02
.853	1.100	1.903E-02	1.458E-01	4.041E-01	3.006E+00	1.398E-01	3.738E-02
.880	1.150	1.875E-02	9.251E-02	3.445E-01	2.222E+00	1.484E-01	3.695E-02
.906	1.200	1.792E-02	5.350E-02	2.864E-01	1.530E+00	1.527E-01	3.442E-02
.932	1.250	1.658E-02	2.739E-02	2.311E-01	9.788E-01	1.515E-01	3.007E-02
.959	1.300	1.491E-02	1.285E-02	1.806E-01	5.576E-01	1.444E-01	2.445E-02
1.003	1.400	1.036E-02	8.957E-03	9.903E-02	1.103E-01	1.125E-01	1.210E-02
1.078	1.600	2.542E-03	2.221E-02	1.843E-02	2.611E-01	2.507E-02	3.085E-04
1.142	1.800	1.367E-04	5.148E-03	6.729E-03	2.079E-01	1.011E-02	4.665E-03
1.185	2.000	4.083E-04	1.472E-03	1.733E-02	2.146E-03	1.929E-02	1.797E-03

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.192	.200	-6.6	87.6	.4	77.5	27.8	18.7
.237	.250	-9.3	88.1	.4	78.3	53.7	20.5
.282	.300	-12.6	88.5	.4	78.3	63.8	19.2
.325	.350	-16.5	89.6	.2	78.2	67.4	4.7
.367	.400	-21.2	89.8	.1	77.5	70.4	4.2
.409	.450	-27.0	89.6	.0	77.2	72.6	7.4
.449	.500	-34.1	89.2	.0	77.8	74.0	12.4
.488	.550	-42.8	88.6	.1	79.8	74.7	18.3
.527	.600	-53.3	88.1	.1	84.1	74.7	24.9
.564	.650	-65.6	87.8	.0	87.3	74.6	28.5
.582	.675	-72.3	87.9	.0	91.5	74.2	32.5
.600	.700	-79.2	88.5	.0	96.7	73.8	36.7
.618	.725	-86.1	89.3	.1	103.0	73.3	41.0
.635	.750	-93.1	90.6	.2	110.2	72.6	45.4
.650	.800	-106.5	93.7	.3	118.4	71.9	49.1
.670	.850	-113.3	95.7	.3	135.1	70.7	51.2
.685	.900	-128.0	96.3	.1	149.0	69.3	45.4
.705	.950	-136.1	95.8	.4	159.3	67.5	36.4
.725	1.000	-143.0	94.4	.9	166.6	65.5	29.2
.745	1.050	-148.9	92.2	1.6	171.9	63.3	24.9
.765	1.100	-154.2	89.3	2.6	175.8	61.0	22.5
.785	1.150	-159.0	85.0	4.1	178.9	58.4	21.4
.805	1.200	-163.7	78.7	6.0	-178.3	55.7	21.0
.825	1.250	-168.3	68.2	8.6	-175.4	52.8	21.2
.845	1.300	-172.9	49.1	11.9	-171.8	49.8	21.9
.865	1.350	-177.5	-16.3	22.3	-166.6	46.5	23.2
.885	1.400	-182.1	-55.4	66.5	-140.5	39.2	28.2
.905	1.450	-186.8	-59.1	170.7	-125.8	12.3	126.0
.925	1.500	-191.5	100.5	-136.8	-13.0	-107.8	-160.9
.945	1.550	-196.2			58.1	-154.4	-130.2

REC = 29 HEADING = 75. DEG RAO SHIP SPEED = 20. KNOTS MOTION/AVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	3.840E+00	1.013E+00	9.816E-01	5.018E-03	1.583E-04	8.791E-04
.233	.250	1.586E+00	1.039E+00	9.741E-01	1.319E-02	2.768E-04	1.118E-03
.276	.300	7.620E-01	1.056E+00	9.651E-01	3.007E-02	6.160E-04	1.700E-03
.317	.350	4.016E-01	1.191E+00	9.703E-01	5.799E-02	1.753E-03	6.694E-03
.357	.400	2.267E-01	1.259E+00	9.730E-01	1.130E-01	3.643E-03	1.155E-02
.395	.450	1.347E-01	1.271E+00	9.699E-01	2.132E-01	6.359E-03	1.587E-02
.432	.500	8.343E-02	1.250E+00	9.592E-01	4.188E-01	9.973E-03	2.055E-02
.469	.550	5.384E-02	1.212E+00	9.395E-01	7.859E-01	1.452E-02	2.630E-02
.502	.600	3.657E-02	1.167E+00	9.097E-01	1.445E+00	1.998E-02	3.343E-02
.519	.625	3.090E-02	1.144E+00	8.908E-01	1.940E+00	2.304E-02	3.749E-02
.535	.650	2.665E-02	1.123E+00	8.694E-01	2.584E+00	2.631E-02	4.177E-02
.551	.675	2.355E-02	1.103E+00	8.455E-01	3.414E+00	2.975E-02	4.608E-02
.567	.700	2.134E-02	1.084E+00	8.191E-01	4.419E+00	3.337E-02	5.016E-02
.582	.725	1.987E-02	1.064E+00	7.906E-01	5.630E+00	3.714E-02	5.366E-02
.597	.750	1.898E-02	1.042E+00	7.600E-01	6.997E+00	4.103E-02	5.614E-02
.623	.800	1.851E-02	9.782E-01	6.936E-01	9.832E+00	4.906E-02	5.676E-02
.654	.850	1.921E-02	8.860E-01	6.450E-01	1.182E+01	6.002E-02	5.337E-02
.690	.900	2.070E-02	7.534E-01	5.958E-01	1.231E+01	7.187E-02	4.764E-02
.705	.950	2.252E-02	6.049E-01	5.437E-01	1.155E+01	8.387E-02	4.355E-02
.729	1.000	2.430E-02	4.630E-01	4.897E-01	1.013E+01	9.532E-02	4.216E-02
.753	1.050	2.573E-02	3.377E-01	4.342E-01	8.455E+00	1.055E-01	4.245E-02
.771	1.100	2.660E-02	2.331E-01	3.784E-01	6.789E+00	1.136E-01	4.295E-02
.791	1.150	2.677E-02	1.496E-01	3.228E-01	5.206E+00	1.187E-01	4.249E-02
.803	1.200	2.615E-02	8.748E-02	2.689E-01	3.787E+00	1.201E-01	4.038E-02
.825	1.250	2.474E-02	4.503E-02	2.172E-01	2.562E+00	1.172E-01	3.638E-02
.841	1.300	2.265E-02	2.055E-02	1.693E-01	1.573E+00	1.098E-01	3.072E-02
.867	1.350	1.700E-02	1.185E-02	8.867E-02	3.694E-01	8.309E-02	1.683E-02
.904	1.600	5.461E-03	4.023E-02	7.122E-03	5.032E-01	1.821E-02	3.618E-04
.929	1.800	3.524E-04	1.259E-02	1.079E-02	7.828E-01	5.213E-03	7.230E-03
.913	2.000	9.282E-04	2.873E-03	1.293E-02	4.463E-02	1.191E-02	4.799E-03

PHASE (MOIION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.189	.200	-6.6	86.6	.4	72.4	-7.2	26.5
.233	.250	-9.3	87.3	.4	74.0	22.0	28.2
.276	.300	-12.5	87.6	.3	74.4	41.7	28.5
.317	.350	-16.4	88.7	.2	73.9	53.1	10.6
.357	.400	-21.1	88.9	.1	73.3	59.6	8.2
.395	.450	-26.9	88.8	.0	73.0	63.8	10.2
.432	.500	-33.9	88.3	-.0	73.3	66.5	14.0
.468	.550	-42.5	87.7	-.1	74.6	68.1	18.6
.502	.600	-53.0	87.0	-.2	77.4	69.8	23.8
.519	.625	-53.9	86.6	-.3	79.5	68.8	26.6
.535	.650	-65.2	86.3	-.4	82.1	68.7	29.5
.551	.675	-71.8	86.0	-.5	85.3	68.4	32.6
.567	.700	-78.6	85.9	-.7	89.2	68.0	35.7
.582	.725	-85.5	86.0	-.9	93.7	67.4	39.0
.597	.750	-92.4	86.2	-1.2	98.9	66.7	42.4
.626	.800	-105.3	87.5	-1.8	110.7	65.0	48.6
.654	.850	-117.2	89.7	-2.1	123.7	63.4	52.2
.680	.900	-127.2	91.7	-2.5	135.3	61.6	51.7
.705	.950	-135.6	92.7	-2.9	144.8	59.4	48.0
.728	1.000	-142.7	92.8	-3.3	152.2	57.0	43.1
.750	1.050	-148.9	91.9	-3.6	158.1	54.2	38.6
.771	1.100	-154.5	90.0	-3.9	162.8	51.2	35.3
.791	1.150	-159.6	86.8	-4.2	166.8	47.8	32.9
.809	1.200	-164.6	81.6	-4.3	170.6	44.3	31.5
.825	1.250	-169.5	72.5	-4.2	174.5	40.4	30.8
.841	1.300	-174.5	55.5	-3.9	179.5	36.2	30.7
.867	1.400	175.0	-14.1	-2.0	-159.6	26.5	32.7
.904	1.500	147.9	-58.9	23.9	-40.0	-5.5	103.5
.920	1.600	86.9	-63.7	133.7	-23.3	-136.1	-156.9
.913	2.000	-49.5	98.5	139.3	29.0	166.7	-132.9

REC = 30 HEADING = 75. DEG SHIP SPEED = 25. KNOTS RAO (MOTION/HAVENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.186	.200	4.068E+00	1.055E+00	9.836E-01	5.281E-03	4.428E-04	8.266E-04
.229	.250	1.707E+00	1.097E+00	9.752E-01	1.371E-02	5.595E-04	9.920E-04
.269	.300	8.331E-01	1.133E+00	9.668E-01	3.095E-02	9.042E-04	1.547E-03
.308	.350	4.472E-01	1.243E+00	9.687E-01	5.968E-02	1.985E-03	5.805E-03
.348	.400	2.570E-01	1.327E+00	9.712E-01	1.139E-01	3.898E-03	1.128E-02
.381	.450	1.555E-01	1.362E+00	9.675E-01	2.166E-01	6.599E-03	1.627E-02
.415	.500	9.812E-02	1.354E+00	9.584E-01	4.047E-01	1.015E-02	2.161E-02
.447	.550	6.454E-02	1.344E+00	9.367E-01	7.374E-01	1.460E-02	2.813E-02
.478	.600	4.466E-02	1.312E+00	9.080E-01	1.305E+00	1.994E-02	3.639E-02
.492	.625	3.808E-02	1.294E+00	8.903E-01	1.716E+00	2.293E-02	4.127E-02
.506	.650	3.314E-02	1.275E+00	8.703E-01	2.235E+00	2.612E-02	4.666E-02
.520	.675	2.951E-02	1.256E+00	8.482E-01	2.882E+00	2.951E-02	5.250E-02
.534	.700	2.697E-02	1.237E+00	8.241E-01	3.676E+00	3.308E-02	5.870E-02
.546	.725	2.530E-02	1.218E+00	7.981E-01	4.628E+00	3.680E-02	6.513E-02
.559	.750	2.435E-02	1.198E+00	7.704E-01	5.742E+00	4.067E-02	7.157E-02
.583	.800	2.412E-02	1.153E+00	7.105E-01	8.407E+00	4.872E-02	8.353E-02
.605	.850	2.549E-02	1.093E+00	6.462E-01	1.137E+01	5.697E-02	9.241E-02
.625	.900	2.785E-02	1.006E+00	5.793E-01	1.409E+01	6.511E-02	9.676E-02
.643	.950	3.078E-02	8.941E-01	5.226E-01	1.587E+01	7.469E-02	9.738E-02
.660	1.000	3.385E-02	7.953E-01	4.578E-01	1.646E+01	8.402E-02	9.450E-02
.675	1.050	3.664E-02	6.053E-01	4.120E-01	1.594E+01	9.195E-02	8.966E-02
.689	1.100	3.878E-02	4.566E-01	3.563E-01	1.455E+01	9.774E-02	8.396E-02
.701	1.150	4.001E-02	3.214E-01	3.012E-01	1.257E+01	1.007E-01	7.750E-02
.711	1.200	4.013E-02	2.080E-01	2.480E-01	1.026E+01	1.003E-01	7.011E-02
.719	1.250	3.906E-02	1.201E-01	1.973E-01	7.815E+00	9.626E-02	6.145E-02
.726	1.300	3.683E-02	5.990E-02	1.506E-01	5.473E+00	8.852E-02	5.153E-02
.734	1.400	2.959E-02	1.430E-02	7.339E-02	1.794E+00	6.409E-02	2.935E-02
.730	1.600	1.193E-02	7.467E-02	2.641E-03	1.367E+00	1.200E-02	1.848E-04
.699	1.800	1.643E-03	5.698E-02	9.405E-03	5.277E+00	3.039E-03	2.038E-02
.641	2.000	1.732E-03	3.206E-03	6.721E-03	1.506E+00	6.500E-03	2.613E-02

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.186	.200	-6.6	85.5	.3	67.3	-18.1	35.4
.229	.250	-9.2	86.4	.3	69.7	2.3	38.0
.269	.300	-12.5	86.8	.2	70.4	21.7	36.1
.308	.350	-16.4	87.6	.1	69.4	38.1	17.8
.345	.400	-21.1	87.9	.0	68.7	48.0	13.2
.381	.450	-26.8	87.8	.0	68.4	54.2	13.9
.415	.500	-33.7	87.4	-.1	68.5	58.2	16.6
.447	.550	-42.3	86.8	-.3	69.5	60.7	20.3
.478	.600	-52.6	85.9	-.5	71.3	62.0	24.3
.506	.625	-58.4	85.5	-.7	72.7	62.3	26.5
.534	.650	-64.7	85.0	-.8	74.3	62.4	28.6
.566	.675	-71.2	84.5	-1.0	76.3	62.3	30.8
.599	.700	-78.0	84.1	-1.3	78.6	62.1	33.0
.633	.725	-84.9	83.7	-1.6	81.2	61.6	35.3
.667	.750	-91.7	83.3	-1.9	84.2	61.1	37.6
.701	.800	-104.6	83.0	-2.7	91.0	59.6	42.1
.734	.850	-116.1	83.1	-3.6	98.8	57.6	46.5
.769	.900	-125.9	83.6	-4.7	105.9	55.2	50.1
.803	.950	-134.5	84.5	-5.7	115.1	52.9	52.6
.837	1.000	-141.9	85.1	-6.7	122.5	50.4	53.5
.871	1.050	-148.3	85.3	-7.9	128.8	47.5	53.3
.905	1.100	-154.1	84.7	-9.2	134.1	44.3	52.4
.939	1.150	-159.5	83.2	-10.5	138.7	40.8	51.1
.973	1.200	-164.7	80.3	-11.9	142.7	37.0	49.7
1.007	1.250	-169.9	75.2	-13.4	146.4	32.8	48.4
1.041	1.300	-175.1	65.8	-14.9	150.4	28.3	47.4
1.075	1.400	-173.5	8.0	-17.6	153.5	18.0	45.8
1.109	1.500	-144.3	-68.0	-1.0	-74.6	-14.5	28.9
1.143	1.600	92.2	-87.8	114.5	-66.7	-156.6	-130.0
1.177	1.800	-57.3	158.9	102.2	-72.3	149.3	-129.2

REC = 31 HEADING = 90. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.087E+00	9.812E-01	9.974E-01	5.398E-03	2.785E-05	6.173E-05
.250	.250	1.210E+00	9.665E-01	9.966E-01	1.437E-02	3.062E-05	4.023E-05
.300	.300	5.527E-01	1.051E+00	1.001E+00	3.281E-02	2.732E-05	1.626E-04
.350	.350	2.790E-01	1.158E+00	1.017E+00	6.945E-02	1.944E-05	4.771E-04
.400	.400	1.526E-01	1.155E+00	1.034E+00	1.432E-01	1.833E-05	3.077E-04
.450	.450	8.822E-02	1.101E+00	1.048E+00	2.948E-01	2.275E-05	3.963E-05
.500	.500	5.326E-02	1.033E+00	1.056E+00	6.274E-01	3.479E-05	1.417E-04
.550	.550	3.326E-02	9.700E-01	1.054E+00	1.446E+00	6.065E-05	1.361E-03
.600	.600	2.135E-02	9.232E-01	1.040E+00	3.782E+00	1.115E-04	5.976E-03
.625	.625	1.724E-02	8.948E-01	1.026E+00	6.285E+00	1.511E-04	1.133E-02
.650	.650	1.374E-02	8.495E-01	1.034E+00	9.509E+00	1.811E-04	1.712E-02
.675	.675	1.102E-02	7.457E-01	1.047E+00	1.105E+01	2.180E-04	1.924E-02
.700	.700	8.836E-03	6.342E-01	1.062E+00	9.573E+00	2.694E-04	1.619E-02
.725	.725	7.107E-03	5.652E-01	1.077E+00	7.101E+00	3.400E-04	1.190E-02
.750	.750	5.731E-03	5.290E-01	1.095E+00	5.100E+00	4.359E-04	8.739E-03
.800	.800	3.749E-03	4.908E-01	1.133E+00	2.917E+00	7.382E-04	5.493E-03
.850	.850	2.470E-03	4.603E-01	1.176E+00	1.729E+00	1.269E-03	4.191E-03
.900	.900	1.640E-03	4.282E-01	1.220E+00	1.144E+00	2.166E-03	3.586E-03
.950	.950	1.103E-03	3.939E-01	1.260E+00	7.934E-01	3.609E-03	3.250E-03
1.000	1.000	7.336E-04	3.554E-01	1.299E+00	5.910E-01	5.836E-03	2.840E-03
1.050	1.050	4.854E-04	3.163E-01	1.333E+00	4.803E-01	9.280E-03	2.398E-03
1.100	1.100	3.530E-04	2.818E-01	1.326E+00	3.889E-01	1.395E-02	2.177E-03
1.150	1.150	2.827E-04	2.510E-01	1.246E+00	3.367E-01	1.905E-02	2.103E-03
1.200	1.200	2.337E-04	2.236E-01	1.097E+00	2.880E-01	2.302E-02	2.128E-03
1.250	1.250	1.854E-04	1.991E-01	9.115E-01	2.490E-01	2.475E-02	2.222E-03
1.300	1.300	1.375E-04	1.772E-01	7.338E-01	2.175E-01	2.431E-02	2.362E-03
1.400	1.400	5.022E-05	1.337E-01	4.143E-01	1.615E-01	1.812E-02	2.343E-03
1.500	1.500	5.352E-07	7.113E-02	1.222E-01	9.680E-02	7.399E-03	2.243E-03
1.800	1.800	8.422E-06	3.483E-02	4.823E-02	5.608E-02	3.203E-03	2.009E-03
2.000	2.000	1.437E-05	1.614E-02	1.862E-02	3.178E-02	1.457E-03	1.652E-03

PHASE (MOTION-AVEAHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-3.5	89.3	.2	88.6	-113.9	7.9
.250	.250	-4.3	89.5	.2	89.6	-103.5	28.5
.300	.300	-5.3	90.4	.1	91.1	-90.0	-24.9
.350	.350	-6.3	91.0	-.1	93.2	-70.1	-46.2
.400	.400	-7.3	91.0	-.2	95.1	-52.6	-50.2
.450	.450	-8.6	90.8	-.2	97.5	-40.5	-36.8
.500	.500	-9.9	90.6	-.1	101.1	-33.7	105.5
.550	.550	-11.5	90.8	.1	107.6	-30.0	117.7
.600	.600	-13.2	92.4	.3	121.1	-27.0	130.8
.625	.625	-14.1	94.4	.4	133.5	-25.5	142.7
.650	.650	-14.8	98.1	.5	151.4	-20.4	160.5
.675	.675	-15.5	101.2	.7	172.8	-14.9	-176.2
.700	.700	-16.3	101.5	.9	-167.8	-9.6	-153.6
.725	.725	-17.1	99.8	1.2	-153.9	-4.6	-135.5
.750	.750	-18.1	97.9	1.4	-144.8	.0	-121.9
.800	.800	-20.2	95.0	2.2	-134.9	8.6	-103.3
.850	.850	-22.9	92.8	3.2	-130.6	16.4	-92.3
.900	.900	-26.2	90.8	4.5	-128.7	24.1	-86.1
.950	.950	-30.5	88.9	6.2	-128.1	32.1	-83.2
1.000	1.000	-35.0	87.4	8.8	-128.2	41.6	-79.7
1.050	1.050	-43.2	85.7	13.2	-128.9	54.2	-72.7
1.100	1.100	-51.0	85.7	18.7	-130.2	68.6	-66.3
1.150	1.150	-57.4	84.3	25.0	-132.2	84.2	-60.9
1.200	1.200	-63.7	82.6	31.2	-134.8	100.0	-56.8
1.250	1.250	-61.5	80.5	36.5	-138.0	114.8	-54.0
1.300	1.300	-60.9	77.9	40.5	-141.7	127.6	-52.5
1.400	1.400	-60.2	73.1	45.7	-147.8	149.7	-49.1
1.500	1.500	-103.6	60.7	44.7	-150.8	172.4	-44.4
1.600	1.600	159.8	43.5	31.0	-176.6	170.1	-47.0
2.000	2.000	135.7	20.8	15.3	165.4	160.8	-54.0

REC = 32

HEADING = 90. DEG
RAOSHIP SPEED = 10. KNOTS
(MOTION/HAVEHT)*2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.087E+00	9.663E-01	9.913E-01	5.328E-03	9.522E-05	2.105E-04
.250	.250	1.210E+00	9.575E-01	9.894E-01	1.425E-02	1.244E-04	1.270E-04
.300	.300	5.523E-01	1.038E+00	9.936E-01	3.211E-02	1.447E-04	3.832E-04
.350	.350	2.793E-01	1.143E+00	1.009E+00	6.718E-02	1.578E-04	8.288E-04
.400	.400	1.524E-01	1.143E+00	1.025E+00	1.398E-01	1.814E-04	5.487E-04
.450	.450	8.801E-02	1.094E+00	1.039E+00	2.863E-01	2.147E-04	1.330E-04
.500	.500	5.309E-02	1.030E+00	1.045E+00	6.049E-01	2.652E-04	1.063E-04
.550	.550	3.312E-02	9.681E-01	1.044E+00	1.349E+00	3.490E-04	1.139E-03
.600	.600	2.123E-02	9.124E-01	1.030E+00	3.156E+00	4.910E-04	4.787E-03
.625	.625	1.713E-02	8.725E-01	1.017E+00	4.697E+00	5.935E-04	8.231E-03
.650	.650	1.368E-02	8.233E-01	1.025E+00	6.191E+00	6.601E-04	1.072E-02
.675	.675	1.093E-02	7.461E-01	1.038E+00	6.692E+00	7.321E-04	1.100E-02
.700	.700	8.757E-03	6.657E-01	1.053E+00	6.015E+00	8.247E-04	9.428E-03
.725	.725	7.037E-03	6.049E-01	1.059E+00	4.862E+00	9.429E-04	7.436E-03
.750	.750	5.670E-03	5.636E-01	1.086E+00	3.790E+00	1.093E-03	5.890E-03
.800	.800	3.701E-03	5.108E-01	1.124E+00	2.328E+00	1.524E-03	4.072E-03
.850	.850	2.435E-03	4.711E-01	1.157E+00	1.518E+00	2.201E-03	3.335E-03
.900	.900	1.615E-03	4.336E-01	1.211E+00	1.044E+00	3.246E-03	3.010E-03
.950	.950	1.086E-03	3.960E-01	1.231E+00	7.446E-01	4.808E-03	2.842E-03
1.000	1.000	7.202E-04	3.558E-01	1.288E+00	5.666E-01	6.999E-03	2.516E-03
1.050	1.050	4.734E-04	3.157E-01	1.319E+00	4.679E-01	1.002E-02	2.086E-03
1.100	1.100	3.393E-04	2.804E-01	1.309E+00	3.925E-01	1.387E-02	1.867E-03
1.150	1.150	2.671E-04	2.491E-01	1.228E+00	3.349E-01	1.793E-02	1.789E-03
1.200	1.200	2.196E-04	2.214E-01	1.076E+00	2.887E-01	2.106E-02	1.810E-03
1.250	1.250	1.761E-04	1.965E-01	8.891E-01	2.510E-01	2.246E-02	1.899E-03
1.300	1.300	1.336E-04	1.744E-01	7.070E-01	2.200E-01	2.212E-02	2.036E-03
1.400	1.400	5.259E-05	1.311E-01	3.891E-01	1.641E-01	1.665E-02	2.025E-03
1.600	1.600	1.373E-06	6.951E-02	1.139E-01	9.785E-02	7.206E-03	1.975E-03
1.800	1.800	7.886E-06	3.409E-02	4.607E-02	5.604E-02	3.345E-03	1.851E-03
2.000	2.000	1.388E-05	1.590E-02	1.807E-02	3.140E-02	1.537E-03	1.603E-03

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-3.5	88.6	.3	85.2	-76.8	9.7
.250	.250	-4.3	88.9	.3	87.9	-68.9	19.7
.300	.300	-5.3	89.9	.2	90.5	-56.5	-10.5
.350	.350	-6.2	90.6	.0	93.7	-39.4	-28.7
.400	.400	-7.3	90.6	-.1	96.3	-23.4	-32.0
.450	.450	-8.6	90.4	-.0	99.4	-22.1	-18.6
.500	.500	-9.9	90.3	.1	103.9	-19.6	92.6
.550	.550	-11.5	90.6	.2	111.9	-19.4	122.0
.600	.600	-13.2	92.2	.4	127.3	-20.3	138.8
.625	.625	-14.1	93.9	.4	139.8	-20.7	150.9
.650	.650	-14.8	96.7	.5	155.6	-17.4	166.3
.675	.675	-15.5	98.8	.7	172.5	-13.4	-175.2
.700	.700	-16.3	99.4	1.0	-172.6	-9.5	-157.0
.725	.725	-17.2	98.8	1.2	-161.1	-5.5	-141.2
.750	.750	-18.1	97.7	1.5	-152.8	-1.5	-128.3
.800	.800	-20.4	95.4	2.3	-143.0	6.2	-109.2
.850	.850	-23.1	92.4	3.3	-138.1	13.7	-97.4
.900	.900	-26.5	91.5	4.7	-135.6	21.2	-90.9
.950	.950	-30.9	89.5	6.5	-134.6	28.8	-87.9
1.000	1.000	-36.4	88.1	9.2	-134.4	37.7	-84.5
1.050	1.050	-43.6	87.3	13.6	-136.0	49.4	-77.6
1.100	1.100	-51.6	86.2	19.1	-137.7	62.9	-71.1
1.150	1.150	-58.5	84.8	25.5	-139.9	77.6	-65.5
1.200	1.200	-62.7	83.1	31.8	-142.7	92.5	-61.2
1.250	1.250	-64.5	81.9	37.4	-146.1	106.7	-58.3
1.300	1.300	-64.8	78.3	41.5	-151.7	119.2	-56.8
1.400	1.400	-66.0	73.3	46.4	-163.9	140.8	-53.5
1.600	1.600	-104.9	60.6	43.8	-179.3	163.9	-49.1
1.800	1.800	154.8	43.1	29.6	-162.8	163.9	-51.9
2.000	2.000	137.8	21.2	14.0	162.8	157.1	-58.4

REC = 33

HEADING = 90. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/VALENT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.086E+00	9.487E-01	9.867E-01	5.258E-03	2.535E-04	3.755E-04
.250	.250	1.209E+00	9.447E-01	9.841E-01	1.412E-02	3.342E-04	2.383E-04
.300	.300	5.519E-01	1.019E+00	9.885E-01	3.126E-02	4.055E-04	6.641E-04
.350	.350	2.789E-01	1.118E+00	1.005E+00	6.433E-02	4.688E-04	1.305E-03
.400	.400	1.521E-01	1.124E+00	1.022E+00	1.330E-01	5.401E-04	8.933E-04
.450	.450	8.780E-02	1.083E+00	1.035E+00	2.741E-01	6.201E-04	2.805E-04
.500	.500	5.292E-02	1.023E+00	1.042E+00	5.703E-01	7.236E-04	7.645E-05
.550	.550	3.298E-02	9.624E-01	1.041E+00	1.205E+00	8.803E-04	8.558E-04
.600	.600	2.111E-02	8.956E-01	1.027E+00	2.455E+00	1.134E-03	3.453E-03
.625	.625	1.703E-02	8.477E-01	1.018E+00	3.248E+00	1.312E-03	5.430E-03
.650	.650	1.358E-02	8.001E-01	1.024E+00	3.843E+00	1.418E-03	6.246E-03
.675	.675	1.084E-02	7.421E-01	1.037E+00	3.968E+00	1.525E-03	5.973E-03
.700	.700	8.681E-03	6.833E-01	1.052E+00	3.662E+00	1.656E-03	5.131E-03
.725	.725	6.970E-03	6.333E-01	1.068E+00	3.152E+00	1.817E-03	4.222E-03
.750	.750	5.611E-03	5.928E-01	1.085E+00	2.629E+00	2.014E-03	3.503E-03
.800	.800	3.658E-03	5.327E-01	1.124E+00	1.795E+00	2.550E-03	2.705E-03
.850	.850	2.403E-03	4.854E-01	1.166E+00	1.254E+00	3.341E-03	2.423E-03
.900	.900	1.593E-03	4.426E-01	1.213E+00	9.037E-01	4.488E-03	2.322E-03
.950	.950	1.070E-03	4.014E-01	1.249E+00	6.669E-01	6.121E-03	2.333E-03
1.000	1.000	7.045E-04	3.599E-01	1.285E+00	5.207E-01	8.235E-03	2.129E-03
1.050	1.050	4.630E-04	3.174E-01	1.312E+00	4.376E-01	1.084E-02	1.737E-03
1.100	1.100	3.271E-04	2.811E-01	1.306E+00	3.733E-01	1.399E-02	1.534E-03
1.150	1.150	2.531E-04	2.490E-01	1.222E+00	3.220E-01	1.725E-02	1.463E-03
1.200	1.200	2.069E-04	2.205E-01	1.075E+00	2.802E-01	1.979E-02	1.485E-03
1.250	1.250	1.678E-04	1.951E-01	8.855E-01	2.453E-01	2.100E-02	1.574E-03
1.300	1.300	1.304E-04	1.726E-01	6.972E-01	2.159E-01	2.080E-02	1.711E-03
1.400	1.400	5.547E-05	1.292E-01	3.713E-01	1.621E-01	1.589E-02	1.719E-03
1.600	1.600	2.567E-06	6.813E-02	1.049E-01	9.649E-02	7.232E-03	1.730E-03
1.800	1.800	7.486E-06	3.341E-02	4.349E-02	5.475E-02	3.543E-03	1.713E-03
2.000	2.000	1.342E-05	1.566E-02	1.743E-02	3.038E-02	1.628E-03	1.565E-03

PHASE (MOTION-WAVEHT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-3.5	87.8	.3	83.2	-63.0	13.2
.250	.250	-4.3	88.3	.3	86.1	-56.9	18.9
.300	.300	-5.3	89.3	.2	89.8	-46.3	-3.1
.350	.350	-6.2	90.1	.1	94.2	-31.6	-18.6
.400	.400	-7.3	90.2	.0	97.8	-22.4	-21.8
.450	.450	-8.6	90.1	.1	101.8	-17.2	-12.6
.500	.500	-9.9	90.1	.2	107.7	-15.0	76.9
.550	.550	-11.5	90.5	.3	117.4	-15.3	128.3
.600	.600	-13.2	92.1	.4	134.1	-16.8	147.9
.625	.625	-14.1	93.4	.4	145.9	-17.6	159.2
.650	.650	-14.8	95.4	.5	159.1	-15.0	171.4
.675	.675	-15.5	96.9	.7	172.0	-11.6	-174.4
.700	.700	-16.4	97.5	1.0	-176.7	-8.2	-160.0
.725	.725	-17.2	97.4	1.3	-167.6	-4.7	-146.4
.750	.750	-18.2	96.9	1.6	-160.6	-1.2	-134.4
.800	.800	-20.5	95.4	2.4	-151.4	5.8	-115.2
.850	.850	-23.3	93.7	3.5	-146.3	12.8	-102.9
.900	.900	-26.8	91.9	5.0	-143.6	19.7	-96.0
.950	.950	-31.2	90.1	6.9	-142.2	26.7	-93.0
1.000	1.000	-36.8	88.7	9.6	-141.7	34.9	-89.7
1.050	1.050	-44.0	87.9	14.0	-141.9	45.5	-83.0
1.100	1.100	-52.0	86.8	19.5	-142.7	57.7	-76.5
1.150	1.150	-59.5	85.4	25.9	-144.1	71.2	-70.7
1.200	1.200	-64.6	83.6	32.4	-146.1	85.1	-66.2
1.250	1.250	-67.4	81.3	38.2	-148.5	98.6	-63.2
1.300	1.300	-68.5	78.7	42.6	-151.5	110.8	-61.7
1.400	1.400	-71.3	73.6	47.7	-156.6	131.7	-58.6
1.600	1.600	-106.3	60.7	43.6	-168.1	155.5	-54.3
1.800	1.800	159.0	42.9	28.5	176.9	158.0	-57.0
2.000	2.000	138.9	19.7	12.7	159.1	153.6	-62.7

REC = 34 HEADING = 90. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/VAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.085E+00	9.270E-01	9.849E-01	5.234E-03	5.251E-04	5.086E-04
.250	.250	1.209E+00	9.304E-01	9.822E-01	1.403E-02	6.815E-04	3.474E-04
.300	.300	5.515E-01	9.964E-01	9.875E-01	3.049E-02	8.293E-04	9.540E-04
.350	.350	2.786E-01	1.089E+00	1.006E+00	6.159E-02	9.700E-04	1.839E-03
.400	.400	1.519E-01	1.100E+00	1.023E+00	1.279E-01	1.108E-03	1.318E-03
.450	.450	8.759E-02	1.068E+00	1.037E+00	2.663E-01	1.245E-03	4.961E-04
.500	.500	5.275E-02	1.017E+00	1.045E+00	5.571E-01	1.408E-03	1.009E-04
.550	.550	3.285E-02	9.620E-01	1.044E+00	1.171E+00	1.642E-03	7.053E-04
.600	.600	2.100E-02	8.997E-01	1.032E+00	2.319E+00	2.012E-03	3.025E-03
.625	.625	1.692E-02	8.536E-01	1.021E+00	3.001E+00	2.271E-03	4.763E-03
.650	.650	1.349E-02	8.075E-01	1.030E+00	3.468E+00	2.415E-03	5.354E-03
.675	.675	1.075E-02	7.520E-01	1.043E+00	3.539E+00	2.551E-03	5.024E-03
.700	.700	8.610E-03	6.953E-01	1.058E+00	3.272E+00	2.713E-03	4.281E-03
.725	.725	6.903E-03	6.456E-01	1.075E+00	2.846E+00	2.909E-03	3.521E-03
.750	.750	5.557E-03	6.044E-01	1.092E+00	2.408E+00	3.142E-03	2.934E-03
.800	.800	3.618E-03	5.410E-01	1.131E+00	1.687E+00	3.753E-03	2.309E-03
.850	.850	2.375E-03	4.906E-01	1.172E+00	1.204E+00	4.616E-03	2.126E-03
.900	.900	1.574E-03	4.455E-01	1.214E+00	6.826E-01	5.818E-03	2.122E-03
.950	.950	1.057E-03	4.027E-01	1.232E+00	6.617E-01	7.471E-03	2.178E-03
1.000	1.000	6.989E-04	3.591E-01	1.235E+00	5.235E-01	9.474E-03	1.986E-03
1.050	1.050	4.542E-04	3.170E-01	1.309E+00	4.443E-01	1.168E-02	1.591E-03
1.100	1.100	3.167E-04	2.802E-01	1.296E+00	3.821E-01	1.426E-02	1.381E-03
1.150	1.150	2.409E-04	2.475E-01	1.224E+00	3.318E-01	1.689E-02	1.300E-03
1.200	1.200	1.954E-04	2.186E-01	1.084E+00	2.902E-01	1.900E-02	1.311E-03
1.250	1.250	1.602E-04	1.928E-01	8.965E-01	2.550E-01	2.011E-02	1.390E-03
1.300	1.300	1.274E-04	1.700E-01	7.025E-01	2.250E-01	2.009E-02	1.521E-03
1.400	1.400	5.864E-05	1.266E-01	3.618E-01	1.692E-01	1.566E-02	1.530E-03
1.600	1.600	4.096E-06	6.641E-02	9.368E-02	9.980E-02	7.456E-03	1.572E-03
1.800	1.800	7.220E-06	3.252E-02	4.055E-02	5.581E-02	3.794E-03	1.633E-03
2.000	2.000	1.299E-05	1.532E-02	1.670E-02	3.055E-02	1.729E-03	1.559E-03

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-3.5	86.9	.3	79.3	-54.6	17.2
.250	.250	-4.3	87.6	.3	83.4	-49.4	20.3
.300	.300	-5.2	88.7	.2	87.7	-39.8	1.9
.350	.350	-6.2	89.5	.1	92.9	-26.5	-11.8
.400	.400	-7.3	89.7	.1	97.2	-18.2	-14.9
.450	.450	-8.6	89.7	.2	101.7	-13.3	-7.6
.500	.500	-10.0	89.7	.3	107.9	-11.4	54.5
.550	.550	-11.5	90.2	.4	118.0	-11.8	126.7
.600	.600	-13.2	91.7	.4	134.9	-13.6	149.7
.625	.625	-14.1	93.0	.3	146.6	-14.6	161.0
.650	.650	-14.9	95.0	.5	159.1	-12.4	172.3
.675	.675	-15.6	96.4	.8	171.1	-9.3	-174.6
.700	.700	-16.4	97.1	1.0	-178.3	-6.2	-161.2
.725	.725	-17.3	97.1	1.4	-169.8	-3.1	-148.3
.750	.750	-18.3	96.8	1.7	-163.2	.1	-136.6
.800	.800	-20.7	95.5	2.7	-154.4	6.5	-117.7
.850	.850	-23.6	94.0	3.9	-149.4	12.9	-105.4
.900	.900	-27.2	92.3	5.4	-145.5	19.2	-98.7
.950	.950	-31.6	90.5	7.3	-145.0	25.6	-96.0
1.000	1.000	-37.2	89.1	10.1	-144.4	32.9	-93.3
1.050	1.050	-44.3	88.3	14.4	-144.6	42.4	-87.2
1.100	1.100	-52.5	87.2	19.9	-145.3	53.3	-81.1
1.150	1.150	-60.3	85.8	26.2	-145.5	65.5	-75.5
1.200	1.200	-66.4	84.0	32.8	-148.2	78.2	-71.1
1.250	1.250	-70.2	81.7	39.0	-150.4	90.8	-68.2
1.300	1.300	-72.1	79.0	43.9	-153.0	102.5	-66.7
1.400	1.400	-76.2	73.9	49.6	-157.7	122.7	-64.0
1.600	1.600	-107.6	60.7	44.1	-168.6	147.3	-60.2
1.800	1.800	163.5	42.6	27.4	176.7	152.4	-62.6
2.000	2.000	140.0	19.1	11.4	159.0	150.2	-67.3

REC = 35

HEADING = 90. DEG
RAO (MOTION/WAVEVENT)**2

SHIP SPEED = 25. KNOTS

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	3.084E+00	9.097E-01	9.877E-01	5.293E-03	9.407E-04	5.965E-04
.250	.250	1.208E+00	9.165E-01	9.854E-01	1.404E-02	1.192E-03	4.375E-04
.300	.300	5.510E-01	9.730E-01	9.922E-01	2.990E-02	1.437E-03	1.208E-03
.350	.350	2.782E-01	1.056E+00	1.013E+00	5.899E-02	1.679E-03	2.353E-03
.400	.400	1.516E-01	1.073E+00	1.031E+00	1.228E-01	1.895E-03	1.761E-03
.450	.450	8.737E-02	1.050E+00	1.046E+00	2.530E-01	2.090E-03	7.442E-04
.500	.500	5.259E-02	1.007E+00	1.054E+00	5.427E-01	2.306E-03	1.518E-04
.550	.550	3.272E-02	9.599E-01	1.054E+00	1.133E+00	2.609E-03	5.660E-04
.600	.600	2.089E-02	9.017E-01	1.043E+00	2.177E+00	3.086E-03	2.590E-03
.625	.625	1.683E-02	8.572E-01	1.034E+00	2.752E+00	3.420E-03	4.094E-03
.650	.650	1.340E-02	8.122E-01	1.042E+00	3.111E+00	3.594E-03	4.501E-03
.675	.675	1.069E-02	7.593E-01	1.056E+00	3.141E+00	3.752E-03	4.147E-03
.700	.700	8.545E-03	7.051E-01	1.071E+00	2.910E+00	3.936E-03	3.503E-03
.725	.725	6.853E-03	6.565E-01	1.088E+00	2.558E+00	4.154E-03	2.877E-03
.750	.750	5.510E-03	6.152E-01	1.105E+00	2.190E+00	4.409E-03	2.406E-03
.800	.800	3.585E-03	5.494E-01	1.143E+00	1.576E+00	5.061E-03	1.930E-03
.850	.850	2.352E-03	4.965E-01	1.183E+00	1.150E+00	5.954E-03	1.831E-03
.900	.900	1.559E-03	4.493E-01	1.223E+00	8.582E-01	7.167E-03	1.888E-03
.950	.950	1.046E-03	4.049E-01	1.258E+00	6.533E-01	8.801E-03	1.995E-03
1.000	1.000	6.910E-04	3.603E-01	1.288E+00	5.240E-01	1.067E-02	1.839E-03
1.050	1.050	4.469E-04	3.175E-01	1.308E+00	4.492E-01	1.251E-02	1.452E-03
1.100	1.100	3.079E-04	2.801E-01	1.296E+00	3.897E-01	1.460E-02	1.241E-03
1.150	1.150	2.304E-04	2.468E-01	1.229E+00	3.406E-01	1.673E-02	1.153E-03
1.200	1.200	1.852E-04	2.174E-01	1.098E+00	2.995E-01	1.852E-02	1.157E-03
1.250	1.250	1.529E-04	1.911E-01	9.178E-01	2.642E-01	1.959E-02	1.230E-03
1.300	1.300	1.244E-04	1.679E-01	7.205E-01	2.337E-01	1.976E-02	1.357E-03
1.400	1.400	6.189E-05	1.245E-01	5.613E-01	1.760E-01	1.584E-02	1.373E-03
1.600	1.600	5.949E-06	6.478E-02	8.568E-02	1.030E-01	7.861E-03	1.448E-03
1.800	1.800	7.088E-06	3.162E-02	3.729E-02	5.677E-02	4.099E-03	1.581E-03
2.000	2.000	1.258E-05	1.495E-02	1.589E-02	3.067E-02	1.841E-03	1.569E-03

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.200	.200	-3.4	85.9	.3	75.0	-47.4	21.5
.250	.250	-4.3	86.9	.2	80.3	-42.8	22.7
.300	.300	-5.2	88.0	.2	85.1	-34.0	5.9
.350	.350	-6.2	88.9	.1	90.9	-21.7	-6.8
.400	.400	-7.3	89.2	.2	96.1	-13.9	-10.0
.450	.450	-8.6	89.3	.3	101.3	-9.4	-4.3
.500	.500	-10.0	89.4	.4	108.1	-7.7	40.0
.550	.550	-11.5	89.9	.5	118.7	-8.2	124.7
.600	.600	-13.2	91.5	.5	135.9	-10.2	151.6
.625	.625	-14.2	92.7	.4	147.3	-11.5	162.9
.650	.650	-14.9	94.5	.6	159.2	-9.5	173.2
.675	.675	-15.7	95.9	.9	170.4	-6.7	-174.9
.700	.700	-16.5	96.6	1.2	-179.9	-3.9	-162.5
.725	.725	-17.4	96.8	1.6	-172.0	-1.0	-150.4
.750	.750	-18.5	96.6	2.0	-165.8	1.9	-139.1
.800	.800	-20.9	95.5	3.0	-157.4	7.8	-120.4
.850	.850	-23.8	94.2	4.3	-152.4	13.6	-108.1
.900	.900	-27.5	92.6	5.9	-149.6	19.4	-101.6
.950	.950	-32.0	90.9	7.9	-148.0	25.1	-99.1
1.000	1.000	-37.5	89.6	10.7	-147.3	31.6	-96.9
1.050	1.050	-44.6	88.8	14.9	-147.3	40.0	-91.6
1.100	1.100	-52.8	87.7	20.2	-147.9	49.6	-86.1
1.150	1.150	-61.1	86.2	26.4	-148.9	60.4	-80.8
1.200	1.200	-67.9	84.4	33.1	-150.4	71.9	-76.5
1.250	1.250	-72.7	82.2	39.5	-152.3	83.5	-73.7
1.300	1.300	-75.5	79.5	45.0	-154.7	94.6	-72.3
1.400	1.400	-80.9	74.3	51.9	-158.8	114.1	-70.1
1.500	1.500	-109.0	60.9	45.4	-169.2	139.6	-66.6
1.600	1.600	168.1	42.4	26.6	176.5	147.1	-68.4
2.000	2.000	141.2	18.6	10.1	156.7	147.0	-71.9

REC = 36

HEADING = 105. DEG
SHIP SPEED = 5. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	2.934E+00	8.872E-01	9.969E-01	5.120E-03	5.472E-04	5.840E-05
.254	.250	1.139E+00	8.676E-01	9.954E-01	1.381E-02	1.176E-03	3.435E-04
.306	.300	5.174E-01	9.598E-01	1.000E+00	3.215E-02	2.190E-03	7.546E-04
.358	.350	2.623E-01	1.034E+00	1.014E+00	7.124E-02	3.754E-03	2.088E-03
.411	.400	1.446E-01	1.008E+00	1.026E+00	1.564E-01	6.212E-03	4.315E-03
.464	.450	8.519E-02	9.390E-01	1.032E+00	3.493E-01	9.906E-03	7.917E-03
.517	.500	5.306E-02	8.578E-01	1.029E+00	8.270E-01	1.519E-02	1.409E-02
.571	.550	3.470E-02	7.764E-01	1.011E+00	2.192E+00	2.235E-02	2.632E-02
.624	.600	2.374E-02	6.689E-01	9.760E-01	6.469E+00	3.143E-02	5.366E-02
.677	.650	1.985E-02	5.771E-01	9.752E-01	9.617E+00	3.698E-02	6.723E-02
.730	.700	1.679E-02	4.603E-01	9.796E-01	1.068E+01	4.338E-02	6.647E-02
.783	.750	1.438E-02	3.808E-01	9.849E-01	8.946E+00	5.065E-02	5.284E-02
.836	.800	1.247E-02	3.480E-01	9.912E-01	6.625E+00	5.887E-02	3.969E-02
.889	.850	1.093E-02	3.341E-01	9.989E-01	4.873E+00	6.809E-02	3.145E-02
.942	.900	9.691E-03	3.233E-01	1.008E+00	3.710E+00	7.835E-02	2.702E-02
.995	.950	7.837E-03	2.955E-01	1.034E+00	2.431E+00	1.020E-01	2.424E-02
1.048	1.000	6.533E-03	2.583E-01	1.070E+00	1.823E+00	1.291E-01	2.512E-02
1.101	.950	5.550E-03	2.160E-01	1.117E+00	1.503E+00	1.575E-01	2.735E-02
1.154	1.100	4.650E-03	1.749E-01	1.186E+00	1.250E+00	1.855E-01	2.891E-02
1.207	1.150	3.797E-03	1.403E-01	1.269E+00	1.023E+00	2.060E-01	2.989E-02
1.260	1.200	3.029E-03	1.102E-01	1.290E+00	8.473E-01	2.461E-01	3.091E-02
1.313	1.250	2.390E-03	8.461E-02	1.175E+00	7.054E-01	1.815E-01	3.162E-02
1.366	1.300	1.920E-03	6.331E-02	9.293E-01	5.907E-01	1.435E-01	3.254E-02
1.419	1.350	1.589E-03	4.603E-02	6.474E-01	4.959E-01	1.083E-01	3.301E-02
1.472	1.400	1.296E-03	3.169E-02	3.886E-01	4.026E-01	7.932E-02	3.192E-02
1.525	1.450	1.019E-03	2.054E-02	1.963E-01	3.045E-01	5.685E-02	2.872E-02
1.578	1.500	6.020E-04	7.878E-03	3.241E-02	1.524E-01	2.822E-02	2.121E-02
1.631	1.550	2.011E-04	2.342E-03	2.683E-03	1.638E-02	3.697E-03	7.107E-03
1.684	1.600	6.725E-05	2.416E-03	1.059E-03	6.690E-03	2.091E-04	1.252E-03
1.737	1.650	1.040E-05	7.636E-04	7.067E-04	6.101E-03	1.279E-04	6.924E-04

PHASE (MOTION-AVANT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	-.3	89.3	.2	92.2	-94.2	-177.5
.254	.250	.7	89.4	.2	95.1	-90.6	-176.0
.305	.300	2.0	90.4	.1	99.9	-88.0	-158.4
.358	.350	3.7	90.8	-.2	105.9	-86.3	-155.5
.411	.400	5.9	90.8	-.2	111.6	-85.3	-166.7
.464	.450	8.4	90.7	-.2	117.9	-84.3	-177.5
.517	.500	11.4	91.1	-.1	128.0	-83.0	-174.3
.571	.550	14.8	92.6	-.1	138.6	-81.3	-170.0
.624	.600	18.7	97.2	-.1	163.2	-79.1	-175.3
.652	.625	21.1	101.0	-.0	176.1	-78.1	-173.7
.679	.650	23.8	102.2	-.0	182.1	-77.0	-159.9
.706	.675	26.5	99.4	-.0	191.0	-75.8	-149.7
.733	.700	29.2	95.6	-.0	195.4	-74.4	-145.4
.761	.725	32.0	92.7	.0	194.3	-72.9	-145.7
.788	.750	34.8	90.6	.1	196.1	-71.2	-148.3
.843	.800	40.2	87.5	.3	184.5	-67.2	-156.1
.859	.850	45.3	84.7	.8	176.7	-62.4	-164.0
.955	.900	50.0	81.8	1.9	171.2	-56.7	-171.2
1.011	.950	55.0	79.9	4.7	167.2	-49.4	-176.6
1.068	1.000	59.7	78.4	10.1	164.0	-40.1	179.7
1.125	1.050	62.9	76.2	18.4	161.4	-29.6	176.5
1.182	1.100	63.8	73.0	29.8	159.3	-19.4	173.4
1.240	1.150	62.7	68.5	39.7	157.6	-11.1	170.3
1.298	1.200	60.4	62.4	49.4	156.3	-5.6	166.9
1.355	1.250	57.8	55.5	58.1	155.8	-2.0	163.5
1.415	1.300	54.9	48.8	65.5	156.2	.9	160.5
1.533	1.400	46.2	28.4	70.2	159.0	6.0	153.6
1.774	1.600	13.7	-51.2	-11.5	185.6	5.9	132.2
2.023	1.800	-25.7	-106.2	-51.7	172.3	-31.1	79.5
2.272	2.000	-102.5	-154.6	-95.3	139.9	-163.9	4.4

REC = 37

HEADING = 105. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	2.782E+00	8.446E-01	9.913E-01	5.096E-03	7.746E-04	9.992E-07
.258	.250	1.066E+00	8.263E-01	9.894E-01	1.395E-02	1.529E-03	1.213E-04
.312	.300	4.777E-01	9.261E-01	9.971E-01	3.238E-02	2.606E-03	3.339E-04
.367	.350	2.390E-01	9.809E-01	1.013E+00	7.343E-02	4.173E-03	1.256E-03
.422	.400	1.301E-01	9.468E-01	1.027E+00	1.667E-01	6.607E-03	3.119E-03
.478	.450	7.568E-02	8.756E-01	1.035E+00	3.869E-01	1.029E-02	6.615E-03
.534	.500	4.654E-02	7.939E-01	1.033E+00	9.313E-01	1.563E-02	1.317E-02
.591	.550	3.005E-02	7.030E-01	1.017E+00	2.509E+00	2.296E-02	2.638E-02
.649	.600	2.019E-02	5.611E-01	1.005E+00	5.357E+00	3.228E-02	4.318E-02
.673	.625	1.676E-02	4.762E-01	1.016E+00	5.673E+00	3.784E-02	4.228E-02
.707	.650	1.409E-02	4.111E-01	1.030E+00	4.921E+00	4.418E-02	3.605E-02
.737	.675	1.199E-02	3.731E-01	1.046E+00	3.878E+00	5.137E-02	2.963E-02
.767	.700	1.033E-02	3.499E-01	1.065E+00	3.011E+00	5.949E-02	2.521E-02
.796	.725	8.990E-03	3.316E-01	1.088E+00	2.396E+00	6.858E-02	2.268E-02
.826	.750	7.910E-03	3.141E-01	1.115E+00	1.952E+00	7.862E-02	2.151E-02
.887	.800	6.285E-03	2.763E-01	1.183E+00	1.436E+00	1.014E-01	2.154E-02
.948	.850	5.125E-03	2.348E-01	1.269E+00	1.172E+00	1.263E-01	2.319E-02
1.010	.900	4.150E-03	1.930E-01	1.386E+00	9.810E-01	1.516E-01	2.443E-02
1.073	.950	3.279E-03	1.569E-01	1.530E+00	8.272E-01	1.710E-01	2.508E-02
1.136	1.000	2.549E-03	1.260E-01	1.590E+00	6.757E-01	1.715E-01	2.602E-02
1.200	1.050	1.989E-03	9.954E-02	1.451E+00	5.725E-01	1.486E-01	2.710E-02
1.264	1.100	1.592E-03	7.707E-02	1.128E+00	4.905E-01	1.148E-01	2.828E-02
1.330	1.150	1.329E-03	5.813E-02	7.657E-01	4.253E-01	8.529E-02	2.952E-02
1.396	1.200	1.054E-03	4.075E-02	4.262E-01	3.416E-01	6.056E-02	2.779E-02
1.462	1.250	8.287E-04	2.762E-02	2.092E-01	2.654E-01	4.376E-02	2.548E-02
1.530	1.300	6.447E-04	1.812E-02	9.128E-02	1.987E-01	3.146E-02	2.273E-02
1.605	1.400	3.789E-04	7.026E-03	1.067E-02	9.670E-02	1.484E-02	1.656E-02
1.948	1.600	1.635E-04	1.304E-03	2.196E-03	7.607E-03	2.117E-03	4.694E-03
2.241	1.800	5.643E-05	1.338E-03	5.008E-04	5.371E-03	2.499E-04	7.305E-04
2.543	2.000	5.776E-06	4.323E-04	4.057E-04	3.933E-03	2.040E-05	4.354E-04

PHASE (MOTION-AVEVENT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	-.3	88.6	.3	90.7	-84.0	-27.1
.259	.250	.6	88.9	.3	94.5	-82.0	178.7
.312	.300	2.0	90.1	.1	101.3	-79.5	-136.9
.357	.350	3.7	90.5	-.1	108.5	-78.1	-145.1
.422	.400	5.9	90.5	-.1	115.2	-77.8	-163.1
.478	.450	8.4	90.6	-.1	122.8	-77.5	-176.0
.534	.500	11.4	91.3	-.0	133.6	-76.7	176.1
.591	.550	14.9	93.6	-.0	152.0	-75.3	175.3
.649	.600	19.1	98.6	-.0	-174.3	-73.4	-171.4
.673	.625	21.7	99.7	.0	-153.7	-72.3	-160.6
.707	.650	24.4	98.4	.1	-135.6	-71.1	-152.6
.737	.675	27.2	96.2	.2	-121.5	-69.7	-148.7
.767	.700	30.0	94.2	.3	-110.8	-68.2	-148.2
.796	.725	32.9	92.4	.5	-102.5	-66.4	-149.8
.826	.750	35.7	90.8	.7	-95.9	-64.4	-152.4
.887	.800	41.3	88.0	1.6	-85.8	-59.6	-159.0
.943	.850	46.6	85.1	3.2	-78.6	-53.7	-165.8
1.010	.900	52.2	82.2	5.7	-73.5	-46.2	-171.3
1.073	.950	57.8	82.1	13.3	-69.6	-36.4	-175.1
1.136	1.000	61.6	80.3	23.2	-66.3	-25.1	-178.3
1.201	1.050	63.0	77.6	35.5	-63.4	-14.3	178.7
1.264	1.100	62.2	73.8	48.1	-61.0	-6.0	175.7
1.330	1.150	60.5	68.5	59.1	-58.9	-.8	172.4
1.396	1.200	59.0	64.7	70.0	-57.9	2.7	169.7
1.462	1.250	56.7	60.0	78.6	-57.5	5.4	167.0
1.531	1.300	53.5	54.0	84.2	-57.6	8.0	164.2
1.606	1.400	43.7	36.3	83.1	-59.3	12.5	158.0
1.698	1.500	6.5	-47.3	19.7	-38.0	-4.3	137.1
2.241	1.800	-24.2	-104.3	-58.1	163.6	-19.6	79.3
2.513	2.000	-99.0	-152.0	-109.2	130.6	-150.4	2.7

REC = 38 HEADING = 105. DEG SHIP SPEED = 15. KNOTS RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.208	.200	2.639E+00	7.958E-01	9.873E-01	5.025E-03	1.084E-03	6.569E-05
.263	.250	9.489E-01	7.801E-01	9.857E-01	1.397E-02	1.975E-02	1.479E-05
.318	.300	4.417E-01	8.805E-01	9.973E-01	3.207E-02	3.097E-03	1.941E-04
.375	.350	2.183E-01	9.201E-01	1.016E+00	7.464E-02	4.657E-03	7.405E-04
.433	.400	1.174E-01	8.827E-01	1.033E+00	1.753E-01	7.058E-03	2.215E-03
.491	.450	6.744E-02	8.112E-01	1.044E+00	4.176E-01	1.073E-02	5.589E-03
.551	.500	4.097E-02	7.268E-01	1.045E+00	1.018E+00	1.614E-02	1.224E-02
.612	.550	2.612E-02	6.155E-01	1.033E+00	2.289E+00	2.369E-02	2.350E-02
.673	.600	1.723E-02	4.840E-01	1.051E+00	3.020E+00	3.278E-02	2.712E-02
.703	.625	1.422E-02	4.303E-01	1.072E+00	2.720E+00	3.818E-02	2.463E-02
.736	.650	1.188E-02	3.915E-01	1.097E+00	2.270E+00	4.434E-02	2.185E-02
.768	.675	1.005E-02	3.630E-01	1.126E+00	1.855E+00	5.131E-02	1.981E-02
.800	.700	8.594E-03	3.398E-01	1.161E+00	1.530E+00	5.914E-02	1.862E-02
.832	.725	7.428E-03	3.186E-01	1.201E+00	1.290E+00	6.785E-02	1.818E-02
.865	.750	6.484E-03	2.978E-01	1.248E+00	1.117E+00	7.739E-02	1.829E-02
.930	.800	5.657E-03	2.555E-01	1.362E+00	9.013E-01	9.851E-02	1.956E-02
.997	.850	3.982E-03	2.124E-01	1.506E+00	7.693E-01	1.209E-01	2.095E-02
1.065	.900	3.054E-03	1.740E-01	1.703E+00	6.354E-01	1.406E-01	2.119E-02
1.134	.950	2.321E-03	1.415E-01	1.831E+00	5.358E-01	1.460E-01	2.190E-02
1.204	1.000	1.768E-03	1.139E-01	1.725E+00	4.594E-01	1.301E-01	2.295E-02
1.275	1.050	1.399E-03	9.025E-02	1.364E+00	4.002E-01	1.015E-01	2.428E-02
1.347	1.100	1.141E-03	6.933E-02	9.106E-01	3.497E-01	7.426E-02	2.535E-02
1.420	1.150	8.967E-04	5.007E-02	5.006E-01	2.870E-01	5.263E-02	2.418E-02
1.493	1.200	7.036E-04	3.531E-02	2.442E-01	2.292E-01	3.803E-02	2.256E-02
1.569	1.250	5.473E-04	2.415E-02	1.063E-01	1.767E-01	2.712E-02	2.053E-02
1.645	1.300	4.239E-04	1.601E-02	4.118E-02	1.311E-01	1.885E-02	1.820E-02
1.800	1.400	2.497E-04	5.381E-03	8.642E-03	6.115E-02	6.863E-03	1.237E-02
2.122	1.600	1.358E-04	7.523E-04	1.738E-03	3.705E-03	1.523E-03	3.117E-03
2.461	1.800	4.655E-05	8.516E-04	2.313E-04	4.215E-03	2.339E-04	4.424E-04
2.815	2.000	3.525E-06	2.821E-04	2.311E-04	2.524E-03	1.528E-05	2.796E-04

PHASE (MOTION-WAVEHT)

ME	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.208	.200	-3.3	87.9	.3	89.1	-75.8	1.0
.253	.250	.6	88.3	.3	94.3	-74.6	-176.1
.313	.300	2.0	89.8	.1	103.5	-71.5	-93.7
.375	.350	3.7	90.3	-.0	112.2	-70.3	-129.0
.433	.400	5.8	90.3	-.0	120.3	-70.6	-158.0
.491	.450	8.4	90.6	-.0	130.0	-70.9	-173.5
.551	.500	11.4	91.7	.0	144.6	-70.7	-179.9
.612	.550	14.9	94.4	-.0	169.3	-69.6	-176.4
.673	.600	19.6	97.6	.1	-156.7	-67.9	-161.7
.703	.625	22.3	97.4	.3	-141.1	-66.8	-155.2
.736	.650	25.0	95.4	.5	-128.3	-65.5	-151.5
.768	.675	27.9	95.0	.7	-118.1	-64.0	-150.4
.800	.700	30.7	93.7	1.0	-109.8	-62.2	-150.9
.832	.725	33.6	92.3	1.5	-102.9	-60.1	-152.7
.865	.750	36.5	91.0	2.1	-97.1	-57.8	-155.0
.897	.800	42.2	88.3	4.0	-87.9	-52.3	-160.7
.930	.850	48.1	86.0	7.4	-81.4	-45.3	-166.5
1.065	.900	58.5	85.3	14.3	-76.7	-35.7	-170.2
1.134	.950	53.4	83.9	24.7	-72.7	-24.3	-173.4
1.204	1.000	61.8	81.7	38.2	-69.2	-12.9	-176.4
1.275	1.050	61.9	78.5	52.2	-66.1	-3.7	-179.2
1.347	1.100	61.0	74.6	65.2	-63.5	2.2	177.8
1.420	1.150	60.3	71.7	77.7	-61.9	6.2	175.2
1.493	1.200	58.8	68.2	87.5	-60.9	9.3	172.8
1.563	1.250	56.2	63.8	94.4	-60.2	12.2	170.3
1.635	1.300	52.4	58.4	98.3	-60.0	14.7	167.7
1.800	1.400	36.5	43.0	70.5	-62.4	12.5	161.3
2.022	1.600	.5	-45.0	29.3	-97.1	-13.0	140.0
2.241	1.800	-26.1	-104.3	-61.9	155.0	-26.9	76.9
2.465	2.000	-87.7	-150.9	-128.8	118.4	-70.4	-.9

REC = 39

HEADING = 105. DEG
RAO (MOTION/HAVEHT)**2

SHIP SPEED = 20. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	2.506E+00	7.454E-01	9.862E-01	4.940E-03	1.483E-03	1.855E-04
.267	.250	9.366E-01	7.314E-01	9.855E-01	1.391E-02	2.508E-03	6.218E-06
.324	.300	4.090E-01	8.263E-01	1.002E+00	3.131E-02	3.642E-03	3.274E-04
.383	.350	1.997E-01	8.548E-01	1.025E+00	7.544E-02	5.166E-03	4.989E-04
.443	.400	1.051E-01	8.171E-01	1.045E+00	1.854E-01	7.496E-03	1.527E-03
.505	.450	6.027E-02	7.496E-01	1.060E+00	4.594E-01	1.112E-02	4.655E-03
.563	.500	3.619E-02	6.655E-01	1.064E+00	1.126E+00	1.661E-02	1.129E-02
.632	.550	2.279E-02	5.434E-01	1.059E+00	2.197E+00	2.430E-02	2.028E-02
.693	.600	1.478E-02	4.317E-01	1.108E+00	2.150E+00	3.271E-02	1.891E-02
.731	.625	1.213E-02	3.913E-01	1.140E+00	1.812E+00	3.785E-02	1.700E-02
.765	.650	1.007E-02	3.613E-01	1.178E+00	1.486E+00	4.369E-02	1.556E-02
.793	.675	8.465E-03	3.370E-01	1.221E+00	1.227E+00	5.030E-02	1.477E-02
.833	.700	7.192E-03	3.153E-01	1.272E+00	1.034E+00	5.769E-02	1.456E-02
.868	.725	6.172E-03	2.944E-01	1.331E+00	8.953E-01	6.586E-02	1.479E-02
.903	.750	5.345E-03	2.736E-01	1.394E+00	7.963E-01	7.473E-02	1.535E-02
.974	.800	4.093E-03	2.317E-01	1.532E+00	6.760E-01	9.394E-02	1.707E-02
1.045	.850	3.050E-03	1.909E-01	1.778E+00	5.563E-01	1.133E-01	1.722E-02
1.120	.900	2.271E-03	1.567E-01	1.985E+00	4.664E-01	1.245E-01	1.774E-02
1.195	.950	1.691E-03	1.279E-01	1.994E+00	3.997E-01	1.185E-01	1.870E-02
1.272	1.000	1.298E-03	1.034E-01	1.634E+00	3.500E-01	9.693E-02	2.006E-02
1.350	1.050	1.029E-03	8.117E-02	1.135E+00	3.089E-01	7.195E-02	2.129E-02
1.429	1.100	7.960E-04	6.016E-02	6.337E-01	2.580E-01	5.108E-02	2.068E-02
1.509	1.150	6.188E-04	4.367E-02	3.097E-01	2.105E-01	3.653E-02	1.967E-02
1.591	1.200	4.809E-04	3.103E-02	1.365E-01	1.604E-01	2.579E-02	1.829E-02
1.675	1.250	3.731E-04	2.143E-02	5.337E-02	1.270E-01	1.766E-02	1.658E-02
1.759	1.300	2.731E-04	1.338E-02	2.153E-02	9.326E-02	1.004E-02	1.423E-02
1.933	1.400	1.735E-04	4.189E-03	8.100E-03	4.129E-02	3.422E-03	9.269E-03
2.295	1.600	1.152E-04	4.609E-04	1.227E-03	2.149E-03	1.223E-03	2.086E-03
2.681	1.800	3.869E-05	6.714E-04	7.578E-05	3.393E-03	2.498E-04	2.749E-04
3.086	2.000	2.365E-06	1.894E-04	1.308E-04	1.434E-03	4.307E-05	1.544E-04

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	-.3	87.2	.3	85.7	-68.4	5.0
.267	.250	.6	87.8	.3	93.5	-67.7	-7.0
.324	.300	2.0	89.4	.1	104.8	-63.8	-53.2
.381	.350	3.7	89.9	.0	114.9	-62.7	-105.8
.443	.400	5.8	90.2	.0	124.0	-63.6	-151.9
.505	.450	8.4	90.7	.1	135.3	-64.7	-171.1
.568	.500	11.4	92.2	.2	153.2	-65.1	-178.3
.632	.550	15.0	95.3	.1	-177.5	-64.5	-169.4
.698	.600	20.1	97.4	.5	-144.9	-62.8	-154.6
.731	.625	22.8	99.7	.8	-131.8	-61.6	-150.3
.765	.650	25.6	95.7	1.2	-121.2	-60.2	-148.6
.799	.675	28.4	94.5	1.7	-112.5	-58.6	-148.7
.833	.700	31.3	93.3	2.4	-105.4	-56.6	-150.1
.868	.725	34.3	92.0	3.2	-99.3	-54.4	-152.3
.903	.750	37.2	90.7	4.2	-94.1	-51.9	-155.0
.937	.800	43.0	88.0	7.3	-85.8	-45.7	-161.0
1.046	.850	50.0	87.4	13.5	-80.4	-37.1	-165.4
1.120	.900	56.1	85.5	23.6	-75.9	-26.4	-168.9
1.195	.950	60.0	84.9	37.3	-71.9	-14.6	-171.9
1.272	1.000	61.3	82.3	52.6	-68.3	-4.2	-174.7
1.350	1.050	61.4	79.0	67.4	-65.1	3.3	-177.5
1.429	1.100	61.6	76.8	81.7	-63.1	8.5	179.9
1.509	1.150	60.8	74.0	93.2	-61.6	12.5	177.5
1.591	1.200	58.9	70.7	101.5	-60.4	15.9	175.3
1.675	1.250	55.7	66.7	107.0	-59.7	18.7	173.1
1.759	1.300	48.2	62.1	94.6	-60.0	19.6	170.2
1.833	1.400	29.6	48.7	63.3	-62.6	9.0	164.0
2.295	1.600	-4.6	-44.0	30.7	-108.5	-19.3	141.3
2.631	1.800	-31.8	-105.4	-57.3	149.2	-50.5	72.0
3.085	2.000	-68.4	-156.7	-145.2	108.1	-52.1	-4.9

REC = 40 HEADING = 105. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.214	.200	2.330E+00	6.967E-01	9.895E-01	4.870E-03	1.976E-03	3.083E-04
.271	.250	8.793E-01	6.826E-01	9.903E-01	1.380E-02	3.112E-03	5.894E-05
.331	.300	3.791E-01	7.672E-01	1.013E+00	3.010E-02	4.209E-03	6.596E-04
.392	.350	1.833E-01	7.878E-01	1.040E+00	7.553E-02	5.645E-03	4.726E-04
.454	.400	9.615E-02	7.527E-01	1.064E+00	1.959E-01	7.850E-03	1.052E-03
.519	.450	5.401E-02	6.903E-01	1.081E+00	5.078E-01	1.140E-02	3.915E-03
.585	.500	3.267E-02	6.057E-01	1.089E+00	1.239E+00	1.694E-02	1.036E-02
.653	.550	1.985E-02	4.850E-01	1.105E+00	1.961E+00	2.415E-02	1.568E-02
.722	.600	1.274E-02	3.883E-01	1.173E+00	1.575E+00	3.201E-02	1.334E-02
.753	.625	1.033E-02	3.566E-01	1.215E+00	1.268E+00	3.681E-02	1.220E-02
.794	.650	8.584E-03	3.317E-01	1.266E+00	1.055E+00	4.227E-02	1.159E-02
.830	.675	7.171E-03	3.100E-01	1.324E+00	8.831E-01	4.844E-02	1.147E-02
.866	.700	6.055E-03	2.896E-01	1.390E+00	7.597E-01	5.534E-02	1.173E-02
.904	.725	5.151E-03	2.695E-01	1.465E+00	6.729E-01	6.295E-02	1.229E-02
.941	.750	4.436E-03	2.494E-01	1.550E+00	6.126E-01	7.119E-02	1.305E-02
1.017	.800	3.254E-03	2.082E-01	1.764E+00	5.129E-01	8.880E-02	1.387E-02
1.093	.850	2.354E-03	1.717E-01	2.030E+00	4.236E-01	1.036E-01	1.415E-02
1.175	.900	1.725E-03	1.415E-01	2.171E+00	3.601E-01	1.075E-01	1.492E-02
1.257	.950	1.277E-03	1.160E-01	1.972E+00	3.141E-01	9.581E-02	1.614E-02
1.340	1.000	9.819E-04	9.349E-02	1.455E+00	2.803E-01	7.495E-02	1.765E-02
1.425	1.050	7.355E-04	7.057E-02	8.479E-01	2.374E-01	5.400E-02	1.746E-02
1.511	1.100	5.632E-04	5.247E-02	4.234E-01	1.970E-01	3.844E-02	1.693E-02
1.593	1.150	4.343E-04	3.829E-02	1.987E-01	1.593E-01	2.677E-02	1.607E-02
1.683	1.200	3.334E-04	2.725E-02	7.601E-02	1.250E-01	1.781E-02	1.437E-02
1.781	1.250	2.364E-04	1.769E-02	2.882E-02	9.493E-02	9.620E-03	1.306E-02
1.874	1.300	1.795E-04	1.091E-02	1.444E-02	6.838E-02	5.110E-03	1.106E-02
2.066	1.400	1.247E-04	3.261E-03	5.954E-03	2.891E-02	1.876E-03	6.996E-03
2.463	1.600	9.155E-05	3.006E-04	9.980E-04	1.458E-03	8.546E-04	1.427E-03
2.901	1.800	3.212E-05	4.565E-04	3.941E-05	2.662E-03	2.583E-04	2.039E-04
3.358	2.000	2.074E-06	1.363E-04	1.057E-04	1.097E-03	6.357E-05	1.174E-04

PHASE (MOTION-HAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.214	.200	-.3	86.4	.2	83.7	-61.2	8.1
.271	.250	.6	87.3	.2	92.3	-60.9	-.0
.331	.300	1.9	88.9	.1	105.7	-55.1	-34.1
.392	.350	3.7	89.6	.1	117.3	-55.2	-80.4
.454	.400	5.8	90.0	.2	127.5	-56.8	-144.1
.519	.450	8.4	90.8	.3	140.6	-58.8	-168.2
.585	.500	11.4	92.9	.4	162.0	-60.0	-171.9
.653	.550	15.4	96.4	.6	-165.5	-59.7	-161.3
.722	.600	20.5	97.1	1.3	-135.2	-58.1	-148.5
.753	.625	23.2	96.2	1.8	-123.9	-56.9	-145.6
.794	.650	26.0	95.2	2.4	-114.7	-55.5	-146.7
.830	.675	28.9	94.1	3.2	-107.1	-53.7	-148.8
.866	.700	31.9	92.9	4.2	-100.7	-49.3	-151.4
.904	.725	34.8	91.7	5.4	-95.2	-45.6	-154.5
.941	.750	37.8	90.4	7.0	-90.5	-39.6	-160.1
1.017	.800	44.5	89.0	11.9	-83.6	-30.1	-164.2
1.095	.850	51.6	88.5	20.7	-78.6	-18.8	-167.4
1.175	.900	57.2	87.4	33.6	-74.2	-7.3	-170.2
1.257	.950	60.3	85.4	49.6	-70.1	2.0	-173.1
1.340	1.000	61.3	82.5	65.8	-66.4	9.2	-175.8
1.425	1.050	62.4	80.8	82.4	-63.9	14.5	-178.2
1.511	1.100	62.5	78.6	95.8	-62.0	18.9	-179.7
1.593	1.150	61.3	76.0	106.0	-60.5	22.6	-177.6
1.689	1.200	58.5	72.9	111.9	-59.4	24.9	-174.9
1.781	1.250	51.4	69.5	100.9	-59.3	22.0	-172.2
1.874	1.300	42.8	65.5	84.6	-59.6	2.6	-165.9
2.055	1.400	22.7	53.2	58.9	-62.6	-30.1	-141.7
2.459	1.600	-10.3	-48.5	29.2	-118.7	-66.0	68.1
2.901	1.800	-36.5	-109.6	-31.4	152.1	-51.9	-7.3
3.358	2.000	-65.1	-164.5	-160.2	100.9		

REC = 41
HEADING = 120. DEG
SHIP SPEED = 5. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	2.795E+00	6.914E-01	9.948E-01	4.212E-03	1.645E-03	3.655E-04
.258	.250	1.075E+00	6.693E-01	9.903E-01	1.162E-02	3.740E-03	1.271E-03
.312	.300	4.848E-01	7.485E-01	9.912E-01	2.837E-02	7.295E-03	2.954E-03
.366	.350	2.454E-01	7.837E-01	9.953E-01	6.852E-02	1.302E-02	6.977E-03
.421	.400	1.362E-01	7.393E-01	9.917E-01	1.565E-01	2.191E-02	1.329E-02
.477	.450	8.140E-02	6.635E-01	9.751E-01	4.169E-01	3.492E-02	2.243E-02
.533	.500	5.232E-02	5.772E-01	9.403E-01	1.122E+00	5.272E-02	3.648E-02
.590	.550	3.605E-02	4.839E-01	8.842E-01	3.411E+00	7.524E-02	6.161E-02
.647	.600	2.666E-02	3.358E-01	8.214E-01	9.546E+00	1.023E-01	9.604E-02
.676	.625	2.357E-02	2.382E-01	8.018E-01	1.115E+01	1.190E-01	9.059E-02
.705	.650	2.118E-02	1.766E-01	7.816E-01	9.680E+00	1.371E-01	6.946E-02
.735	.675	1.932E-02	1.585E-01	7.611E-01	7.355E+00	1.567E-01	5.190E-02
.764	.700	1.783E-02	1.404E-01	7.409E-01	5.541E+00	1.775E-01	4.239E-02
.794	.725	1.660E-02	1.285E-01	7.217E-01	4.319E+00	1.992E-01	3.826E-02
.824	.750	1.556E-02	1.144E-01	7.042E-01	3.502E+00	2.211E-01	3.683E-02
.850	.800	1.377E-02	8.184E-02	6.750E-01	2.523E+00	2.629E-01	3.738E-02
.945	.850	1.208E-02	4.986E-02	6.507E-01	1.955E+00	2.945E-01	3.840E-02
1.006	.900	1.020E-02	2.595E-02	6.274E-01	1.467E+00	3.100E-01	3.723E-02
1.063	.950	8.041E-03	1.168E-02	5.893E-01	1.011E+00	3.005E-01	3.388E-02
1.131	1.000	5.824E-03	3.604E-03	4.766E-01	6.758E-01	2.507E-01	2.943E-02
1.195	1.050	3.872E-03	4.281E-04	2.910E-01	4.329E-01	1.724E-01	2.416E-02
1.259	1.100	2.416E-03	7.125E-04	1.222E-01	2.648E-01	9.835E-02	1.855E-02
1.324	1.150	1.821E-03	2.958E-03	3.509E-02	1.556E-01	4.722E-02	1.312E-02
1.393	1.200	7.329E-04	4.781E-03	1.229E-02	8.287E-02	1.696E-02	7.419E-03
1.455	1.250	3.382E-04	5.593E-03	1.896E-02	5.270E-02	3.687E-03	3.606E-03
1.522	1.300	1.459E-04	5.310E-03	2.400E-02	4.680E-02	8.627E-05	1.717E-03
1.587	1.400	5.578E-05	2.928E-03	1.379E-02	4.374E-02	2.115E-03	1.337E-03
1.636	1.600	1.758E-05	5.714E-04	5.400E-04	4.312E-03	4.750E-04	6.701E-04
2.225	1.800	8.225E-06	1.593E-04	7.378E-05	3.489E-03	1.235E-03	2.097E-04
2.525	2.000	6.128E-06	7.635E-05	8.830E-05	6.767E-04	3.518E-05	3.712E-05

PHASE (MOTION-AVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.205	.200	2.7	89.2	.2	95.6	-91.5	-176.6
.258	.250	5.3	89.3	.2	100.1	-88.9	179.2
.312	.300	8.8	90.4	.0	108.0	-87.0	-167.8
.366	.350	13.1	91.6	.2	116.6	-85.5	-168.5
.421	.400	18.2	90.5	.3	124.4	-84.2	-175.2
.477	.450	24.3	90.8	.3	132.5	-82.7	178.3
.533	.500	31.2	91.9	.3	142.5	-80.7	173.6
.590	.550	38.9	95.4	.5	159.0	-78.1	173.0
.647	.600	47.1	103.8	.9	166.5	-75.3	-174.2
.706	.625	51.6	105.0	-1.2	-141.7	-73.8	-162.4
.765	.650	55.8	103.4	-1.5	-119.5	-72.1	-155.1
.824	.675	59.9	94.4	-1.9	-103.4	-70.2	-154.4
.884	.700	63.8	91.2	-2.3	-92.3	-68.1	-157.9
.945	.725	67.5	87.3	-2.8	-84.5	-65.8	-163.1
1.006	.750	70.9	85.1	-3.3	-79.1	-63.3	-168.4
1.068	.800	76.9	81.4	-4.2	-72.5	-57.5	-178.2
1.131	.850	81.9	77.6	-4.2	-70.1	-50.7	173.0
1.195	.900	86.4	74.7	-2.2	-69.4	-42.1	166.3
1.259	.950	90.5	71.8	3.7	-69.0	-30.8	162.0
1.324	1.000	92.8	64.7	13.4	-70.2	-17.9	157.7
1.389	1.050	92.7	32.5	24.8	-73.2	-4.8	152.8
1.455	1.100	89.7	-72.4	32.4	-79.0	6.5	146.6
1.522	1.150	84.2	-93.5	26.2	-88.9	15.7	138.3
1.587	1.200	76.0	-104.8	-14.7	-107.6	24.7	128.3
1.655	1.250	62.9	-113.4	-44.0	-133.9	33.6	112.6
1.722	1.300	42.1	-121.7	-48.2	-159.7	50.5	86.5
1.789	1.400	-26.2	-142.8	-46.1	168.2	-129.9	19.5
1.857	1.500	-99.6	110.8	-130.2	96.6	-97.2	-50.3
1.925	1.600	138.0	14.0	-179.8	-15.6	111.9	-177.4
2.000	1.800	-4.8	-116.6	68.6	-175.5	-43.0	53.4

PHASE (MOTION-WAVEHT)

ME	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	2.7	88.6	.3	94.9	-85.2	-156.8
.266	.250	5.3	88.8	.3	100.5	-83.5	-176.5
.324	.300	8.8	90.2	.1	111.2	-81.5	-157.4
.382	.350	13.1	90.4	-.1	120.9	-80.3	-163.8
.442	.400	18.2	90.4	-.2	129.7	-79.3	-173.2
.503	.450	24.3	91.0	-.3	140.0	-77.9	-179.7
.566	.500	31.3	93.1	-.5	155.9	-75.8	-176.8
.623	.550	39.1	98.2	-.8	-174.3	-73.0	-176.3
.695	.600	48.1	99.9	-1.1	-130.7	-69.8	-158.7
.728	.625	52.6	96.7	-1.3	-113.6	-67.8	-155.8
.761	.650	57.0	93.5	-1.5	-101.0	-65.6	-157.0
.795	.675	61.3	91.0	-1.7	-91.8	-63.2	-160.4
.823	.700	65.3	88.8	-1.7	-85.1	-60.4	-164.6
.853	.725	69.2	86.9	-1.6	-80.1	-57.3	-169.0
.883	.750	72.8	85.1	-1.2	-76.5	-53.9	-173.4
.908	.800	79.3	81.4	1.0	-72.6	-45.9	-178.1
1.040	.850	86.0	79.9	7.2	-69.5	-34.9	-173.1
1.113	.900	91.5	77.7	18.8	-67.4	-21.0	-169.3
1.187	.950	94.5	73.1	35.1	-65.5	-6.0	-165.5
1.263	1.000	94.3	62.9	52.2	-65.8	7.2	-161.1
1.339	1.050	91.8	33.4	66.4	-69.0	17.7	-156.0
1.418	1.100	88.2	-39.1	76.1	-75.3	27.5	-151.1
1.497	1.150	82.3	-83.0	50.0	-86.6	36.6	-144.9
1.578	1.200	73.5	-97.7	-32.2	-106.4	45.9	-136.2
1.660	1.250	60.0	-106.8	-39.1	-136.2	57.8	-122.2
1.744	1.300	34.6	-115.8	-30.8	-166.6	-81.1	-96.2
1.915	1.400	-16.9	-136.8	-26.3	-160.4	-90.8	-22.1
2.272	1.600	-117.9	106.7	-110.1	78.1	-115.9	-48.9
2.651	1.800	154.0	9.7	67.0	-31.0	155.2	-173.4
3.050	2.000	-28.4	-117.8	94.3	175.0	-64.5	40.6

REC = 43

HEADING = 120. DEG
SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.216	.200	2.292E+00	5.813E-01	9.863E-01	4.217E-03	2.434E-03	7.752E-06
.275	.250	8.407E-01	5.591E-01	9.831E-01	1.230E-02	4.908E-03	3.232E-04
.335	.300	3.620E-01	6.505E-01	9.973E-01	3.146E-02	8.381E-03	9.982E-04
.398	.350	1.754E-01	6.451E-01	1.011E+00	8.518E-02	1.396E-02	3.438E-03
.463	.400	9.315E-02	5.864E-01	1.018E+00	2.318E-01	2.275E-02	8.271E-03
.530	.450	5.350E-02	5.054E-01	1.013E+00	6.425E-01	3.595E-02	1.655E-02
.598	.500	3.304E-02	4.009E-01	9.918E-01	1.683E+00	5.430E-02	2.914E-02
.669	.550	2.188E-02	2.857E-01	9.890E-01	2.549E+00	7.790E-02	3.823E-02
.742	.600	1.566E-02	2.109E-01	1.021E+00	1.992E+00	1.046E-01	2.651E-02
.779	.625	1.362E-02	1.881E-01	1.045E+00	1.663E+00	1.269E-01	2.451E-02
.816	.650	1.203E-02	1.684E-01	1.080E+00	1.414E+00	1.470E-01	2.378E-02
.854	.675	1.077E-02	1.494E-01	1.123E+00	1.235E+00	1.686E-01	2.387E-02
.893	.700	9.730E-03	1.304E-01	1.173E+00	1.107E+00	1.911E-01	2.450E-02
.932	.725	8.848E-03	1.116E-01	1.234E+00	1.014E+00	2.136E-01	2.538E-02
.971	.750	8.066E-03	9.330E-02	1.297E+00	9.433E-01	2.346E-01	2.628E-02
1.052	.800	6.497E-03	6.321E-02	1.486E+00	7.277E-01	2.724E-01	2.586E-02
1.135	.850	4.955E-03	4.048E-02	1.567E+00	5.577E-01	2.733E-01	2.526E-02
1.219	.900	3.546E-03	2.366E-02	1.282E+00	4.276E-01	2.199E-01	2.448E-02
1.305	.950	2.488E-03	1.190E-02	7.420E-01	3.267E-01	1.454E-01	2.340E-02
1.394	1.000	1.674E-03	4.592E-03	2.891E-01	2.211E-01	8.325E-02	1.965E-02
1.484	1.050	1.073E-03	1.195E-03	7.144E-02	1.307E-01	4.345E-02	1.477E-02
1.576	1.100	6.511E-04	2.186E-04	7.839E-03	6.819E-02	2.021E-02	1.018E-02
1.671	1.150	3.656E-04	4.585E-04	2.581E-04	3.047E-02	7.799E-03	6.298E-03
1.767	1.200	1.897E-04	1.040E-03	3.481E-03	1.275E-02	1.632E-03	3.193E-03
1.866	1.250	1.065E-04	1.437E-03	4.319E-03	8.190E-03	1.923E-04	1.323E-03
1.966	1.300	7.821E-05	1.447E-03	3.134E-03	9.439E-03	2.786E-04	4.873E-04
2.172	1.400	4.105E-05	7.054E-04	7.785E-04	1.081E-02	4.448E-04	3.551E-04
2.608	1.600	4.618E-06	1.246E-04	2.908E-04	9.370E-04	7.352E-06	1.198E-04
3.070	1.800	6.607E-06	5.956E-05	4.029E-05	7.123E-04	3.176E-04	4.027E-05
3.575	2.000	4.641E-06	4.121E-05	9.285E-05	9.190E-05	1.749E-04	8.621E-06

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.216	.200	2.6	88.0	.3	94.5	-79.4	-113.9
.275	.250	5.2	88.4	.3	101.7	-78.4	-170.3
.335	.300	8.7	89.9	.0	115.9	-75.9	-142.1
.398	.350	13.0	90.2	-.1	128.9	-75.1	-158.2
.463	.400	18.2	90.5	-.2	137.6	-74.5	-170.6
.530	.450	24.4	91.6	-.3	152.1	-73.3	-177.3
.598	.500	31.4	94.5	-.5	176.6	-71.1	-175.9
.663	.550	39.9	98.1	-.7	148.1	-68.1	-163.6
.742	.600	49.1	95.9	-.8	114.1	-64.2	-157.1
.779	.655	53.8	93.9	-.7	103.1	-61.8	-158.2
.816	.690	58.3	92.1	-.4	94.7	-59.1	-160.9
.854	.675	62.7	90.3	.1	88.3	-55.9	-164.3
.893	.700	66.9	88.6	.9	83.5	-52.4	-168.0
.932	.725	71.0	86.9	2.3	79.9	-48.5	-172.0
.971	.750	74.8	85.1	4.3	77.4	-44.1	-176.0
1.052	.800	83.3	84.1	12.4	72.9	-32.1	179.4
1.135	.850	90.2	82.5	26.8	69.5	-17.1	175.8
1.219	.900	94.0	79.1	46.4	67.2	-1.3	172.3
1.305	.950	94.5	72.4	66.4	65.7	12.0	168.3
1.394	1.000	93.7	64.3	85.9	66.6	23.1	164.6
1.484	1.050	91.5	49.5	102.4	69.6	32.9	160.9
1.576	1.100	87.4	-3.0	112.5	75.3	42.1	156.6
1.671	1.150	81.2	-70.9	-23.1	85.9	51.1	151.2
1.767	1.200	66.7	-93.9	-13.9	110.6	51.2	142.4
1.865	1.250	46.1	-105.3	-6.9	148.7	14.1	127.9
1.966	1.300	23.0	-113.9	-3.3	179.4	-51.3	100.7
2.172	1.400	-14.2	-135.0	-23.3	150.7	-64.5	20.2
2.608	1.600	-150.2	94.4	-114.2	59.1	140.4	-54.1
3.077	1.800	166.6	-12.6	-27.2	-47.7	157.7	163.9
3.575	2.000	-43.6	-157.4	91.5	171.2	-70.4	40.7

REC = 44

HEADING = 120. DEG
RAO (MOTION/HAVENT)**2
SHIP SPEED = 20. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	2.082E+00	5.251E-01	9.456E-01	4.150E-03	2.926E-03	3.570E-05
.283	.250	7.474E-01	5.161E-01	9.853E-01	1.231E-02	5.493E-03	7.546E-05
.347	.300	3.151E-01	5.902E-01	1.008E+00	3.269E-02	8.809E-03	6.005E-04
.414	.350	1.497E-01	5.758E-01	1.028E+00	9.498E-02	1.419E-02	2.372E-03
.484	.400	7.803E-02	5.173E-01	1.041E+00	2.746E-01	2.283E-02	6.634E-03
.556	.450	4.401E-02	4.374E-01	1.044E+00	7.775E-01	3.603E-02	1.448E-02
.631	.500	2.669E-02	3.259E-01	1.035E+00	1.679E+00	5.447E-02	2.340E-02
.703	.550	1.735E-02	2.377E-01	1.086E+00	1.611E+00	7.773E-02	2.060E-02
.789	.600	1.223E-02	1.878E-01	1.170E+00	1.143E+00	1.083E-01	1.780E-02
.830	.625	1.054E-02	1.687E-01	1.230E+00	9.821E-01	1.264E-01	1.770E-02
.872	.650	9.222E-03	1.502E-01	1.303E+00	8.698E-01	1.461E-01	1.819E-02
.914	.675	8.164E-03	1.319E-01	1.389E+00	7.923E-01	1.669E-01	1.903E-02
.957	.700	7.284E-03	1.137E-01	1.485E+00	7.331E-01	1.880E-01	2.004E-02
1.001	.725	6.481E-03	9.628E-02	1.607E+00	6.707E-01	2.092E-01	2.047E-02
1.045	.750	5.722E-03	8.092E-02	1.762E+00	5.831E-01	2.239E-01	2.037E-02
1.136	.800	4.332E-03	5.555E-02	1.985E+00	4.607E-01	2.443E-01	2.042E-02
1.229	.850	3.109E-03	3.604E-02	1.754E+00	3.663E-01	2.088E-01	2.061E-02
1.325	.900	2.206E-03	2.132E-02	1.087E+00	2.956E-01	1.448E-01	2.087E-02
1.424	.950	1.501E-03	1.048E-02	4.505E-01	2.063E-01	8.584E-02	1.795E-02
1.525	1.000	1.001E-03	4.300E-03	1.313E-01	1.316E-01	4.741E-02	1.440E-02
1.623	1.050	6.417E-04	1.291E-03	2.440E-02	7.542E-02	2.369E-02	1.075E-02
1.735	1.100	3.737E-04	1.944E-04	1.395E-03	3.723E-02	9.045E-03	7.144E-03
1.844	1.150	2.054E-04	1.767E-04	1.624E-03	1.523E-02	2.317E-03	4.063E-03
1.955	1.200	1.186E-04	5.264E-04	2.923E-03	6.073E-03	4.608E-04	1.960E-03
2.073	1.250	7.892E-05	8.111E-04	2.512E-03	4.663E-03	2.720E-04	7.491E-04
2.187	1.300	5.991E-05	8.549E-04	1.465E-03	6.415E-03	3.775E-04	2.449E-04
2.429	1.400	2.933E-05	3.800E-04	3.441E-04	7.072E-03	2.618E-04	2.207E-04
2.943	1.600	8.690E-07	7.166E-05	2.667E-04	9.443E-04	5.686E-05	7.305E-05
3.501	1.800	4.932E-06	2.816E-05	5.275E-05	6.006E-04	2.720E-04	3.613E-05
4.099	2.000	2.093E-06	4.290E-05	2.617E-05	3.903E-05	3.410E-05	7.699E-06

PHASE (MOTION-AVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	2.6	87.3	.3	93.5	-73.8	-22.3
.283	.250	5.2	88.1	.2	103.3	-72.8	-140.6
.347	.300	8.7	89.7	.0	120.2	-70.2	-119.3
.414	.350	13.0	90.1	-.1	132.3	-69.9	-151.5
.484	.400	18.2	90.7	-.1	144.7	-69.8	-167.8
.556	.450	24.4	92.4	-.2	163.6	-68.8	-173.4
.631	.500	31.6	95.8	-.4	-164.5	-66.7	-167.9
.703	.550	40.7	97.2	-.2	-127.6	-63.4	-156.0
.789	.600	50.1	94.4	.4	-102.9	-58.8	-155.7
.830	.625	54.9	92.8	1.1	-94.6	-55.9	-158.3
.872	.650	59.5	91.2	2.0	-88.1	-52.6	-161.6
.914	.675	64.1	89.5	3.5	-83.3	-49.9	-165.4
.957	.700	68.5	87.8	5.7	-79.7	-44.6	-169.4
1.001	.725	73.2	86.9	8.9	-76.8	-39.5	-172.7
1.045	.750	78.1	86.8	13.7	-74.2	-33.2	-174.8
1.136	.800	86.7	85.8	28.7	-69.8	-18.2	-178.5
1.229	.850	92.2	83.3	49.7	-66.4	-1.8	-178.2
1.325	.900	94.0	78.4	71.9	-63.8	12.2	174.5
1.424	.950	94.9	74.6	94.7	-63.6	24.4	171.4
1.525	1.000	94.0	69.1	114.0	-64.7	34.8	168.4
1.629	1.050	91.3	58.2	130.2	-67.2	44.5	165.2
1.735	1.100	84.8	24.3	116.2	-73.8	52.3	160.9
1.844	1.150	72.5	-67.2	25.1	-88.6	52.0	154.9
1.956	1.200	55.5	-94.5	16.0	-117.9	30.3	146.5
2.070	1.250	35.0	-105.9	13.3	-159.8	-19.2	131.5
2.187	1.300	16.0	-115.1	5.1	171.9	-38.8	99.5
2.329	1.400	-14.4	-136.4	-29.5	144.8	-48.6	15.3
2.493	1.500	-171.0	84.2	-120.9	49.4	58.0	-66.3
3.501	1.800	161.1	-15.0	-33.1	-64.8	154.6	145.9
4.099	2.000	-53.0	-159.1	71.2	177.9	-78.8	39.2

REC = 45

HEADING = 120. DEG
RAO (MOTION/HAVENT)**2

SHIP SPEED = 25. KNOTS

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	1.896E+00	4.743E-01	9.902E-01	4.051E-03	3.449E-03	1.347E-04
.291	.250	6.562E-01	4.779E-01	9.967E-01	1.190E-02	5.973E-03	1.07E-04
.359	.300	2.755E-01	5.285E-01	1.025E+00	3.356E-02	9.078E-03	5.034E-04
.431	.350	1.285E-01	5.102E-01	1.051E+00	1.063E-01	1.416E-02	1.67E-03
.505	.400	6.581E-02	4.547E-01	1.071E+00	3.289E-01	2.255E-02	5.47E-03
.583	.450	3.650E-02	3.739E-01	1.083E+00	9.291E-01	3.570E-02	1.275E-02
.664	.500	2.170E-02	2.695E-01	1.11E+00	1.439E+00	5.341E-02	1.63E-02
.749	.550	1.390E-02	2.041E-01	1.202E+00	1.081E+00	7.593E-02	1.35E-02
.836	.600	9.644E-03	1.658E-01	1.345E+00	7.688E-01	1.055E-01	1.301E-02
.881	.625	8.240E-03	1.486E-01	1.441E+00	6.811E-01	1.229E-01	1.360E-02
.927	.650	7.137E-03	1.315E-01	1.554E+00	6.233E-01	1.416E-01	1.448E-02
.974	.675	6.244E-03	1.144E-01	1.680E+00	5.851E-01	1.611E-01	1.551E-02
1.022	.700	5.419E-03	9.775E-02	1.860E+00	5.157E-01	1.814E-01	1.59E-02
1.070	.725	4.700E-03	8.307E-02	2.062E+00	4.542E-01	1.990E-01	1.58E-02
1.113	.750	4.053E-03	7.018E-02	2.23E+00	4.035E-01	2.103E-01	1.587E-02
1.220	.800	2.914E-03	4.869E-02	2.230E+00	3.253E-01	2.001E-01	1.65E-02
1.324	.850	2.055E-03	3.186E-02	1.558E+00	2.704E-01	1.511E-01	1.75E-02
1.431	.900	1.403E-03	1.794E-02	7.205E-01	1.986E-01	9.504E-02	1.58E-02
1.542	.950	9.532E-04	9.08E-03	2.389E-01	1.352E-01	5.497E-02	1.344E-02
1.656	1.000	6.370E-04	3.937E-03	5.852E-02	8.426E-02	2.900E-02	1.074E-02
1.773	1.050	3.755E-04	1.159E-03	7.249E-03	4.649E-02	1.123E-02	7.639E-03
1.894	1.100	2.144E-04	1.503E-04	1.593E-03	2.165E-02	3.310E-03	4.832E-03
2.018	1.150	1.242E-04	6.482E-05	2.403E-03	8.245E-03	7.706E-04	2.667E-03
2.145	1.200	7.924E-05	3.219E-04	2.192E-03	3.597E-03	2.960E-04	1.200E-03
2.276	1.250	6.001E-05	5.379E-04	1.447E-03	3.541E-03	3.448E-04	4.170E-04
2.403	1.300	4.740E-05	5.517E-04	7.826E-04	4.944E-03	3.595E-04	1.294E-04
2.685	1.400	2.378E-05	2.159E-04	7.647E-05	5.222E-03	3.670E-04	1.562E-04
3.279	1.600	1.791E-07	5.487E-05	2.356E-04	9.355E-04	1.177E-04	5.351E-05
3.927	1.800	2.472E-06	2.903E-05	1.375E-05	4.932E-04	7.947E-05	3.197E-05
4.624	2.000	1.020E-06	3.558E-05	6.175E-06	2.248E-05	6.273E-06	4.220E-06

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.226	.200	2.6	85.7	.2	92.1	-67.5	-9.8
.291	.250	5.2	87.9	.1	105.5	-66.5	-53.6
.359	.300	8.7	89.5	.1	124.3	-64.2	-92.2
.430	.350	13.0	90.1	.1	137.3	-64.7	-143.8
.505	.400	18.2	91.0	.1	151.7	-65.3	-164.7
.583	.450	24.5	93.6	.1	175.8	-64.7	-168.4
.664	.500	32.2	97.2	.2	-146.4	-62.6	-157.8
.749	.550	41.4	96.3	.9	-113.7	-59.0	-150.7
.836	.600	51.0	93.4	2.5	-93.8	-53.7	-154.3
.881	.625	55.9	91.9	3.9	-87.1	-50.4	-157.8
.927	.650	60.7	90.3	5.8	-82.0	-46.7	-161.8
.974	.675	65.4	88.6	8.4	-78.3	-42.3	-166.1
1.022	.700	70.9	88.5	12.6	-75.2	-36.8	-168.8
1.070	.725	76.2	88.5	18.5	-72.4	-30.2	-171.0
1.119	.750	81.1	88.2	26.2	-70.0	-22.8	-172.9
1.220	.800	88.8	85.6	47.1	-65.7	-6.3	-176.4
1.324	.850	92.7	83.0	71.1	-62.2	9.2	-179.8
1.431	.900	95.2	80.6	96.3	-61.1	22.9	-177.1
1.542	.950	95.6	77.4	117.7	-61.0	34.4	-174.4
1.656	1.000	94.2	72.6	135.4	-61.8	44.8	-171.8
1.773	1.050	88.5	64.6	129.1	-66.1	53.8	-168.1
1.894	1.100	78.8	42.4	70.1	-74.6	55.8	-163.6
2.013	1.150	64.6	-65.9	35.7	-91.2	43.7	-158.0
2.145	1.200	45.6	-93.2	24.8	-126.8	3.6	-148.3
2.276	1.250	26.6	-109.6	16.8	-168.7	-23.9	-131.2
2.409	1.300	10.3	-117.6	7.5	-166.7	-34.8	-94.6
2.586	1.400	-17.0	-140.5	-13.8	-141.1	-48.4	7.7
3.273	1.600	116.5	76.1	-128.2	-46.3	44.6	-78.0
3.927	1.800	143.1	-17.0	-25.9	-72.0	151.5	-141.4
4.624	2.000	-57.4	-151.2	67.2	154.6	-91.3	25.8

REC = 46

HEADING = 135. DEG
SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.207	.200	2.682E+00	4.482E-01	9.918E-01	2.881E-03	3.058E-03	5.724E-04
.262	.250	1.022E+00	4.299E-01	9.828E-01	8.159E-03	7.074E-03	1.755E-03
.317	.300	4.576E-01	4.822E-01	9.769E-01	2.117E-02	1.398E-02	4.195E-03
.373	.350	2.144E-01	4.895E-01	9.676E-01	5.579E-02	2.514E-02	9.347E-03
.430	.400	1.295E-01	4.455E-01	9.433E-01	1.478E-01	4.213E-02	1.688E-02
.488	.450	7.965E-02	3.800E-01	8.976E-01	4.021E-01	6.606E-02	2.712E-02
.546	.500	5.402E-02	3.199E-01	8.267E-01	1.180E+00	9.685E-02	4.209E-02
.606	.550	4.338E-02	2.385E-01	7.310E-01	3.908E+00	1.321E-01	6.755E-02
.667	.600	3.304E-02	1.197E-01	6.407E-01	9.038E+00	1.721E-01	8.102E-02
.693	.625	3.066E-02	7.087E-02	6.003E-01	8.367E+00	1.941E-01	6.132E-02
.728	.650	2.973E-02	5.182E-02	5.599E-01	6.275E+00	2.160E-01	4.318E-02
.760	.675	2.707E-02	4.358E-02	5.205E-01	4.540E+00	2.368E-01	3.365E-02
.791	.700	2.553E-02	3.627E-02	4.829E-01	3.380E+00	2.555E-01	2.948E-02
.823	.725	2.399E-02	2.888E-02	4.479E-01	2.610E+00	2.709E-01	2.772E-02
.854	.750	2.238E-02	2.022E-02	4.197E-01	2.377E+00	2.815E-01	2.681E-02
.913	.800	1.878E-02	7.032E-03	3.559E-01	1.380E+00	2.833E-01	2.486E-02
.984	.850	1.465E-02	6.979E-04	2.920E-01	9.193E-01	2.532E-01	2.109E-02
1.050	.900	1.009E-02	2.979E-04	2.218E-01	5.068E-01	1.994E-01	1.562E-02
1.118	.950	5.973E-03	2.178E-03	1.272E-01	2.653E-01	1.225E-01	1.020E-02
1.186	1.000	2.972E-03	4.512E-03	5.014E-02	1.402E-01	5.123E-02	5.653E-03
1.253	1.050	1.245E-03	5.944E-03	3.577E-02	8.931E-02	1.122E-02	2.586E-03
1.325	1.100	4.539E-04	6.077E-03	5.148E-02	7.518E-02	1.554E-04	1.222E-03
1.396	1.150	1.809E-04	4.305E-03	5.189E-02	6.961E-02	2.751E-03	1.053E-03
1.467	1.200	1.447E-04	2.464E-03	3.198E-02	5.755E-02	7.060E-03	1.445E-03
1.540	1.250	1.498E-04	1.285E-03	1.170E-02	3.746E-02	7.806E-03	1.600E-03
1.614	1.300	1.238E-04	8.475E-04	2.140E-03	1.825E-02	5.307E-03	1.288E-03
1.764	1.400	3.609E-05	7.322E-04	1.882E-03	5.356E-03	2.425E-04	3.738E-04
2.075	1.600	1.586E-05	1.275E-04	3.308E-05	7.393E-04	4.103E-04	1.311E-04
2.402	1.800	4.545E-06	2.835E-05	3.110E-06	3.580E-04	1.238E-04	3.628E-05
2.742	2.000	4.690E-06	2.090E-05	1.145E-04	7.269E-05	2.958E-04	9.922E-06

PHASE (MOIION-HAVENT)

HE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.207	.200	5.3	89.2	.2	98.3	-90.3	-176.8
.262	.250	9.4	89.3	.2	104.1	-88.0	179.5
.317	.300	14.7	90.3	.0	114.2	-86.1	-171.1
.373	.350	21.4	90.4	-.2	124.0	-84.5	-173.3
.430	.400	29.3	90.4	-.3	132.2	-82.8	-179.2
.488	.450	38.6	90.9	-.4	140.2	-80.7	175.3
.546	.500	48.8	93.0	-.7	150.6	-78.0	171.4
.606	.550	59.3	99.4	-1.3	169.8	-74.7	173.0
.667	.600	69.6	110.5	-2.4	-148.9	-71.0	-168.4
.693	.625	74.4	106.7	-3.1	-122.2	-68.9	-159.9
.728	.650	78.7	97.7	-4.1	-104.1	-66.5	-159.2
.760	.675	82.5	91.1	-5.2	-92.4	-64.0	-164.0
.791	.700	86.0	87.1	-6.5	-80.9	-61.2	-170.4
.823	.725	89.0	84.4	-7.8	-80.3	-58.2	-176.8
.854	.750	91.6	82.5	-9.2	-77.8	-54.8	177.2
.880	.800	95.3	80.4	-11.6	-77.2	-47.1	166.4
.913	.850	98.8	90.1	-12.6	-81.3	-39.1	156.1
.944	.900	100.9	-139.7	-10.7	-85.9	-25.8	149.9
1.050	.950	100.8	-122.0	-8.1	-95.3	-11.4	142.4
1.113	1.000	96.7	-121.4	-17.6	-111.5	3.4	131.6
1.186	1.050	86.4	-124.7	-48.8	-134.7	15.9	112.7
1.255	1.100	55.1	-131.6	-60.1	-150.7	10.0	76.2
1.325	1.150	28.7	-142.9	-56.5	179.6	-135.1	29.1
1.396	1.200	-13.4	-159.7	-49.4	163.4	-126.1	-1.3
1.467	1.250	-42.7	174.0	-45.9	143.6	-116.7	-20.1
1.540	1.300	-64.7	138.3	-59.6	123.9	-106.8	-36.4
1.614	1.400	-113.6	77.6	-155.0	48.6	-78.3	-89.8
1.764	1.600	110.4	-62.4	-1.4	-71.0	123.7	133.3
2.075	1.800	-24.8	135.4	13.6	138.5	-28.6	-36.9
2.402	2.000	-170.7	-60.7	34.6	-75.1	-161.0	125.1

REC = 47 HEADING = 135. DEG SHIP SPEED = 10. KNOTS

RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	2.332E+00	4.032E-01	9.871E-01	2.941E-03	3.520E-03	2.257E-04
.273	.250	8.595E-01	3.831E-01	9.791E-01	8.630E-03	7.779E-03	1.066E-03
.333	.300	3.730E-01	4.442E-01	9.815E-01	2.374E-02	1.462E-02	2.783E-03
.395	.350	1.831E-01	4.327E-01	9.779E-01	6.737E-02	2.577E-02	6.876E-03
.459	.400	9.954E-02	3.824E-01	9.602E-01	1.930E-01	4.296E-02	1.326E-02
.523	.450	5.965E-02	3.195E-01	9.223E-01	5.815E-01	6.751E-02	2.279E-02
.593	.500	3.943E-02	2.473E-01	8.615E-01	1.877E+00	9.914E-02	3.806E-02
.662	.550	2.885E-02	1.465E-01	8.019E-01	4.054E+00	1.375E-01	4.640E-02
.734	.600	2.315E-02	8.276E-02	7.657E-01	3.003E+00	1.848E-01	3.033E-02
.807	.625	2.123E-02	6.986E-02	7.515E-01	2.380E+00	2.103E-01	2.529E-02
.884	.650	1.975E-02	5.897E-02	7.412E-01	1.879E+00	2.361E-01	2.319E-02
.962	.675	1.836E-02	4.816E-02	7.354E-01	1.533E+00	2.607E-01	2.247E-02
.1.040	.700	1.703E-02	3.744E-02	7.333E-01	1.247E+00	2.827E-01	2.229E-02
.1.118	.725	1.580E-02	2.737E-02	7.321E-01	1.102E+00	3.003E-01	2.217E-02
.1.196	.750	1.445E-02	1.851E-02	7.267E-01	9.532E-01	3.103E-01	2.183E-02
.1.274	.800	1.145E-02	7.157E-03	7.141E-01	6.301E-01	3.112E-01	1.936E-02
.1.352	.850	8.026E-03	1.664E-03	6.022E-01	3.852E-01	2.616E-01	1.596E-02
.1.430	.900	4.924E-03	8.818E-04	3.316E-01	2.233E-01	1.647E-01	1.220E-02
.1.508	.950	2.715E-03	7.883E-04	9.111E-02	1.200E-01	7.564E-02	8.432E-03
.1.586	1.000	1.315E-03	2.329E-03	9.161E-03	5.996E-02	2.447E-02	4.679E-03
.1.664	1.050	5.323E-04	3.045E-03	1.551E-02	3.137E-02	4.085E-03	1.891E-03
.1.742	1.100	1.837E-04	2.843E-03	2.506E-02	2.945E-02	1.563E-03	5.143E-04
.1.820	1.150	7.043E-05	2.040E-03	1.968E-02	2.471E-02	1.563E-03	5.143E-04
.1.898	1.200	6.865E-05	1.125E-03	8.357E-03	2.039E-02	2.948E-03	6.906E-04
.1.976	1.250	7.639E-05	5.008E-04	1.889E-03	1.300E-02	2.633E-03	7.288E-04
.2.054	1.300	5.613E-05	2.794E-04	3.191E-04	5.477E-03	1.442E-03	5.314E-04
.2.132	1.400	1.100E-05	2.534E-04	6.666E-04	1.862E-03	1.407E-03	1.133E-04
.2.210	1.600	3.165E-06	5.003E-05	1.638E-04	2.900E-04	8.044E-05	4.165E-05
.2.288	1.800	5.715E-06	1.473E-05	9.948E-05	2.493E-04	3.845E-04	1.863E-05
.2.366	2.000	6.098E-06	9.969E-06	1.645E-04	2.568E-04	4.655E-04	1.535E-05

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.215	.200	5.2	88.6	.3	98.3	-85.4	-169.1
.273	.250	9.3	88.8	.3	105.2	-83.7	-176.4
.333	.300	14.7	90.1	.0	118.7	-81.7	-163.2
.395	.350	21.3	90.2	-.2	129.1	-80.2	-169.9
.459	.400	29.3	90.4	-.4	138.5	-78.5	-177.6
.525	.450	39.6	91.6	-.6	150.2	-76.2	-176.9
.593	.500	49.0	95.8	-1.1	170.8	-73.1	177.3
.662	.550	60.0	102.9	-1.8	-147.8	-69.2	-167.9
.734	.600	70.7	95.7	-2.9	-107.2	-64.5	-159.7
.770	.625	75.6	92.6	-3.4	-95.1	-61.7	-162.8
.807	.650	80.0	89.5	-3.9	-86.9	-58.5	-167.8
.844	.675	84.1	87.1	-4.2	-81.5	-54.9	-173.1
.882	.700	87.8	85.0	-4.1	-78.1	-51.0	-178.4
.920	.725	91.1	83.1	-3.5	-76.2	-46.5	176.5
.959	.750	94.1	81.4	-2.2	-75.7	-41.7	171.4
1.038	.800	99.9	80.7	4.5	-74.9	-28.9	164.9
1.118	.850	104.3	80.6	18.1	-75.5	-12.4	160.0
1.201	.900	105.5	81.9	36.2	-79.0	5.5	154.4
1.285	.950	102.6	-103.4	49.7	-86.6	21.5	146.9
1.371	1.000	96.2	-109.1	25.0	-102.7	36.3	136.6
1.459	1.050	84.7	-116.3	-38.3	-131.4	54.3	120.5
1.549	1.100	63.5	-123.9	-37.8	-162.1	151.4	87.9
1.641	1.150	24.4	-133.8	-31.4	176.3	-126.2	39.7
1.735	1.200	-17.3	-149.4	-25.2	160.8	-106.3	7.1
1.830	1.250	-39.5	-176.2	-28.5	146.0	-90.9	-12.6
1.928	1.300	-55.0	-143.3	-72.3	125.8	-79.1	-28.4
2.128	1.400	-122.1	77.2	-132.4	29.3	-83.4	-89.0
2.553	1.600	104.1	-82.0	72.4	-104.0	176.9	122.2
3.004	1.800	17.0	101.1	-145.8	105.7	18.3	-60.4
3.485	2.000	-153.2	-72.5	25.4	-77.9	-156.4	112.6

REC = 48

HEADING = 135. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/HAVENT)**2

ME	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.222	.200	2.037E+00	3.573E-01	9.841E-01	2.958E-03	4.038E-03	5.674E-05
.285	.250	7.281E-01	3.515E-01	9.803E-01	9.006E-03	8.421E-03	4.875E-04
.350	.300	3.071E-01	3.994E-01	9.910E-01	2.655E-02	1.509E-02	1.748E-03
.418	.350	1.467E-01	3.772E-01	9.949E-01	8.116E-02	2.613E-02	5.046E-03
.483	.400	7.73E-02	3.251E-01	9.862E-01	2.478E-01	4.341E-02	1.070E-02
.563	.450	4.543E-02	2.603E-01	9.601E-01	7.622E-01	6.833E-02	1.954E-02
.633	.500	2.938E-02	1.754E-01	9.209E-01	1.756E+00	1.003E-01	2.745E-02
.713	.550	2.116E-02	1.115E-01	9.281E-01	1.543E+00	1.426E-01	2.204E-02
.801	.600	1.669E-02	8.003E-02	9.614E-01	1.124E+00	1.936E-01	1.823E-02
.883	.625	1.315E-02	5.733E-02	9.917E-01	9.535E-01	2.211E-01	1.794E-02
.973	.650	1.388E-02	5.502E-02	1.031E+00	8.306E-01	2.483E-01	1.803E-02
1.018	.675	1.273E-02	4.323E-02	1.076E+00	7.386E-01	2.733E-01	1.833E-02
1.063	.700	1.154E-02	3.243E-02	1.119E+00	6.651E-01	2.935E-01	1.851E-02
1.156	.725	1.047E-02	2.387E-02	1.186E+00	5.565E-01	3.116E-01	1.783E-02
1.252	.750	9.234E-03	1.703E-02	1.242E+00	4.589E-01	3.194E-01	1.703E-02
1.351	.800	6.834E-03	7.331E-03	1.143E+00	3.081E-01	2.807E-01	1.514E-02
1.453	.850	4.225E-03	2.024E-03	6.683E-01	2.012E-01	1.812E-01	1.297E-02
1.557	.900	2.332E-03	1.183E-04	2.118E-01	1.217E-01	8.981E-02	1.013E-02
1.664	.950	1.361E-03	2.763E-04	2.326E-02	5.624E-02	3.464E-02	6.103E-03
1.774	1.000	6.834E-04	1.003E-03	9.100E-04	2.289E-02	9.771E-03	3.098E-03
1.887	1.050	2.657E-04	1.476E-03	9.599E-03	1.107E-02	1.342E-03	1.203E-03
2.002	1.100	1.017E-04	1.407E-03	9.617E-03	1.043E-02	1.255E-04	3.665E-04
2.123	1.150	6.021E-05	9.647E-04	5.195E-03	1.125E-02	1.068E-03	2.443E-04
2.241	1.200	4.326E-05	4.877E-04	1.794E-03	9.289E-03	1.433E-03	3.345E-04
2.365	1.250	2.546E-05	1.057E-04	4.387E-04	5.472E-03	9.225E-04	3.481E-04
2.492	1.300	1.012E-05	1.185E-04	3.255E-04	2.164E-03	3.653E-04	2.372E-04
2.627	1.400	5.869E-07	3.014E-05	1.649E-04	1.176E-03	3.805E-05	4.443E-05
2.762	1.500	4.111E-06	8.533E-06	7.222E-05	3.080E-04	2.634E-04	2.260E-05
2.907	1.600	2.662E-06	1.968E-06	1.384E-05	2.525E-04	7.640E-05	1.373E-05

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.222	.200	5.2	88.0	.3	98.8	-80.8	-152.1
.285	.250	9.3	88.6	.2	108.6	-79.3	-163.8
.350	.300	14.7	90.0	-.1	124.9	-77.1	-153.6
.413	.350	21.3	90.2	-.3	136.4	-76.0	-166.3
.489	.400	29.3	90.8	-.5	148.5	-74.4	-175.3
.553	.450	38.7	93.1	-.8	157.5	-71.9	-178.4
.639	.500	49.4	97.8	-1.3	158.0	-68.3	-170.7
.713	.550	61.0	97.4	-1.7	118.1	-63.7	-160.2
.801	.600	72.0	92.6	-1.9	94.4	-57.6	-163.9
.843	.625	77.1	90.4	-1.6	87.3	-53.9	-168.0
.885	.650	81.8	88.4	-.8	82.5	-49.7	-172.6
.923	.675	86.1	85.4	.8	79.4	-45.0	-177.3
.973	.700	90.1	84.5	3.3	77.8	-39.7	177.8
1.013	.725	94.4	84.2	7.5	75.9	-33.0	175.0
1.063	.750	98.4	83.9	13.9	74.2	-25.1	172.8
1.155	.800	104.6	82.2	33.0	72.4	-6.6	168.5
1.252	.850	106.9	76.3	57.5	72.3	12.2	163.8
1.351	.900	105.6	43.9	80.6	75.2	28.1	158.1
1.453	.950	102.1	-90.4	99.5	-84.6	43.4	152.2
1.557	1.000	95.3	-103.5	-22.3	-103.1	59.1	143.9
1.664	1.050	83.7	-110.4	-33.2	-135.2	81.8	129.5
1.774	1.100	55.9	-119.1	-17.0	-170.8	-119.8	96.4
1.897	1.150	16.9	-129.9	-7.9	157.0	-88.6	42.5
2.002	1.200	-11.9	-145.2	-6.0	152.2	-76.5	8.8
2.120	1.250	-32.3	-174.2	-29.9	136.5	-59.0	-11.4
2.241	1.300	-56.3	137.6	-79.0	111.8	-68.4	-29.4
2.492	1.400	-145.8	68.2	-115.7	12.0	158.7	-102.0
3.025	1.600	174.2	-93.2	56.8	-121.9	-150.4	102.4
3.605	1.800	12.4	106.1	-152.2	91.0	16.1	-74.1
4.227	2.000	168.4	-58.8	7.7	-80.7	-178.4	114.1

REC = 49

HEADING = 135. DEG

SHIP SPEED = 20. KNOTS

RAO (MOTION/HAVENT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	1.786E+00	3.171E-01	9.851E-01	2.938E-03	4.563E-03	1.940E-05
.296	.250	6.208E-01	3.247E-01	9.883E-01	9.195E-03	8.895E-03	1.752E-04
.367	.300	2.550E-01	3.527E-01	1.007E+00	2.982E-02	1.533E-02	1.096E-03
.441	.350	1.189E-01	3.261E-01	1.019E+00	9.943E-02	2.611E-02	3.739E-03
.519	.400	6.156E-02	2.759E-01	1.022E+00	3.294E-01	4.330E-02	8.896E-03
.600	.450	3.521E-02	2.083E-01	1.010E+00	1.003E+00	6.831E-02	1.684E-02
.696	.500	2.234E-02	1.326E-01	1.028E+00	1.376E+00	1.012E-01	1.712E-02
.775	.550	1.582E-02	9.405E-02	1.105E+00	9.514E-01	1.442E-01	1.332E-02
.867	.600	1.223E-02	6.959E-02	1.229E+00	6.777E-01	1.961E-01	1.303E-02
.915	.625	1.097E-02	5.787E-02	1.317E+00	6.010E-01	2.233E-01	1.350E-02
.964	.650	9.903E-03	4.648E-02	1.411E+00	5.456E-01	2.490E-01	1.405E-02
1.013	.675	8.871E-03	3.637E-02	1.542E+00	4.693E-01	2.739E-01	1.396E-02
1.064	.700	7.840E-03	2.798E-02	1.688E+00	3.932E-01	2.923E-01	1.364E-02
1.115	.725	6.783E-03	2.097E-02	1.780E+00	3.305E-01	2.961E-01	1.332E-02
1.168	.750	5.722E-03	1.520E-02	1.738E+00	2.733E-01	2.797E-01	1.299E-02
1.275	.800	3.806E-03	6.787E-03	1.153E+00	1.975E-01	1.959E-01	1.221E-02
1.386	.850	2.389E-03	1.997E-02	4.307E-02	1.263E-01	1.050E-01	1.015E-02
1.501	.900	1.408E-03	2.271E-04	8.247E-02	6.530E-02	4.682E-02	6.970E-03
1.620	.950	7.663E-04	7.892E-05	4.235E-03	2.806E-02	1.695E-02	4.157E-03
1.742	1.000	3.575E-04	4.628E-04	1.630E-03	1.031E-02	3.483E-03	1.971E-03
1.863	1.050	1.494E-04	7.535E-04	4.878E-03	5.456E-03	8.913E-05	6.679E-04
1.993	1.100	7.436E-05	7.313E-04	4.002E-03	5.926E-03	3.218E-04	1.757E-04
2.132	1.150	5.428E-05	5.112E-04	1.929E-03	6.631E-03	7.154E-04	1.247E-04
2.269	1.200	4.130E-05	2.480E-04	6.755E-04	5.434E-03	6.212E-04	1.905E-04
2.410	1.250	2.518E-05	8.602E-05	2.605E-04	3.074E-03	3.451E-04	1.908E-04
2.555	1.300	1.009E-05	5.583E-05	1.893E-04	1.244E-03	1.215E-04	1.187E-04
2.855	1.400	5.865E-06	7.373E-05	3.047E-04	9.239E-04	1.214E-04	2.829E-05
3.500	1.600	7.973E-07	2.592E-05	1.266E-04	3.367E-04	2.273E-04	2.705E-05
4.206	1.800	2.298E-06	5.564E-06	1.243E-05	2.779E-04	6.431E-05	1.864E-05
4.968	2.000	1.288E-06	1.829E-06	2.017E-06	1.962E-04	1.673E-05	9.018E-06

PHASE (MOTION-HAVEHT)

WE	W	SURGE	SHAY	HEAVE	ROLL	PITCH	YAW
.230	.200	5.2	87.4	.3	99.1	-75.7	-75.8
.296	.250	9.3	88.6	.1	112.9	-74.2	-129.0
.367	.300	14.6	89.8	-.1	130.2	-72.4	-141.6
.441	.350	21.3	90.2	-.2	142.2	-71.7	-162.6
.513	.400	29.4	91.4	-.4	157.1	-70.3	-172.9
.600	.450	38.9	95.0	-.7	-175.6	-67.6	-172.1
.686	.500	50.2	98.5	-.9	-132.1	-63.7	-158.7
.775	.550	62.1	94.8	-.6	-100.3	-58.1	-157.1
.867	.600	73.5	90.6	1.0	-83.9	-50.6	-165.0
.915	.625	78.7	88.7	2.8	-79.3	-46.0	-169.8
.964	.650	83.7	86.7	5.6	-76.4	-40.8	-174.8
1.013	.675	89.0	86.1	10.0	-73.8	-34.2	-178.2
1.064	.700	94.1	86.0	16.7	-71.4	-26.3	-179.5
1.115	.725	98.6	85.6	25.9	-69.5	-17.2	-177.4
1.168	.750	102.4	84.7	37.4	-67.9	-7.4	-175.4
1.275	.800	106.5	80.4	64.6	-65.8	12.1	-171.2
1.386	.850	107.3	73.3	92.7	-66.5	29.0	-166.8
1.501	.900	105.8	58.9	118.8	-70.9	44.3	-162.7
1.621	.950	101.8	-73.3	145.9	-80.0	59.1	-157.7
1.742	1.000	92.3	-99.2	-19.9	-101.8	72.9	-149.6
1.868	1.050	73.1	-109.4	-2.5	-142.9	67.9	-134.4
1.998	1.100	42.8	-117.9	5.4	-178.2	-70.1	-99.7
2.132	1.150	12.3	-129.4	3.5	151.1	-64.5	38.3
2.269	1.200	-10.9	-146.3	-11.5	145.8	-58.7	4.3
2.410	1.250	-32.2	-179.1	-45.5	129.1	-55.6	-15.1
2.555	1.300	-55.5	121.6	-93.3	100.9	-41.0	-35.5
2.695	1.400	-159.1	57.1	-111.4	7.4	111.4	-119.4
3.500	1.600	-153.2	-109.7	45.9	-121.2	-150.8	92.2
4.205	1.800	-18.3	107.2	-165.9	89.2	-4.3	-71.8
4.968	2.000	154.1	-86.2	-19.7	-80.2	157.1	113.1

REC = 50

HEADING = 135. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/WAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.237	.200	1.573E+00	2.790E-01	9.908E-01	2.875E-03	5.075E-03	7.197E-05
.308	.250	5.333E-01	2.923E-01	1.002E+00	9.197E-03	9.195E-03	1.714E-04
.384	.300	2.135E-01	3.076E-01	1.029E+00	3.328E-02	1.524E-02	7.451E-04
.464	.350	9.730E-02	2.800E-01	1.051E+00	1.205E-01	2.561E-02	2.866E-03
.543	.400	4.934E-02	2.309E-01	1.065E+00	4.114E-01	4.259E-02	7.572E-03
.633	.450	2.766E-02	1.595E-01	1.073E+00	9.452E-01	6.739E-02	1.241E-02
.732	.500	1.744E-02	1.090E-01	1.159E+00	7.913E-01	9.966E-02	1.011E-02
.831	.550	1.200E-02	8.284E-02	1.312E+00	5.470E-01	1.422E-01	9.378E-03
.934	.600	9.044E-03	6.025E-02	1.548E+00	4.331E-01	1.926E-01	1.037E-02
.987	.625	8.033E-03	4.926E-02	1.697E+00	3.952E-01	2.185E-01	1.090E-02
1.042	.650	7.045E-03	3.946E-02	1.917E+00	3.331E-01	2.439E-01	1.075E-02
1.093	.675	6.130E-03	3.117E-02	2.127E+00	2.834E-01	2.610E-01	1.068E-02
1.155	.700	5.235E-03	2.417E-02	2.237E+00	2.428E-01	2.633E-01	1.054E-02
1.213	.725	4.368E-03	1.825E-02	2.137E+00	2.093E-01	2.490E-01	1.064E-02
1.272	.750	3.500E-03	1.335E-02	1.793E+00	1.816E-01	2.117E-01	1.065E-02
1.334	.800	2.310E-03	5.825E-03	8.161E-01	1.257E-01	1.263E-01	9.598E-03
1.394	.850	1.438E-03	1.835E-03	2.120E-01	7.278E-02	6.278E-02	7.288E-03
1.452	.900	8.571E-04	2.925E-04	3.057E-02	3.606E-02	2.649E-02	4.964E-03
1.512	.950	4.325E-04	1.679E-05	3.769E-04	1.449E-02	6.866E-03	2.757E-03
1.573	1.000	1.955E-04	2.273E-04	2.163E-03	5.089E-03	8.295E-04	1.205E-03
1.633	1.050	9.183E-05	4.249E-04	3.037E-03	3.152E-03	5.852E-05	3.732E-04
1.693	1.100	5.456E-05	4.503E-04	1.936E-03	3.994E-03	3.435E-04	8.365E-05
1.753	1.150	4.003E-05	3.067E-04	8.614E-04	4.374E-03	4.492E-04	7.724E-05
1.813	1.200	3.015E-05	1.236E-04	2.391E-04	3.592E-03	4.835E-04	1.236E-04
1.873	1.250	1.637E-05	4.134E-05	3.657E-05	2.005E-03	3.268E-04	1.156E-04
1.933	1.300	6.270E-06	4.307E-05	1.175E-04	8.930E-04	1.672E-04	7.041E-05
1.993	1.400	2.288E-06	5.227E-05	3.063E-04	7.287E-04	1.538E-04	2.448E-05
2.053	1.600	4.022E-07	1.952E-05	4.757E-05	3.236E-04	6.138E-05	2.335E-05
2.113	1.800	1.157E-06	3.191E-06	1.330E-06	2.268E-04	1.873E-05	1.478E-05
2.173	2.000	7.295E-07	1.037E-06	4.459E-07	1.572E-04	6.219E-06	9.286E-06

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
237	200	5.1	86.8	.2	99.2	-70.1	-31.5
238	250	9.2	88.5	.1	117.8	-68.7	-77.1
239	300	14.6	89.8	-.0	136.4	-67.6	-127.2
240	350	21.3	90.5	-.1	149.9	-67.5	-158.3
241	400	29.4	92.5	-.2	159.7	-68.4	-168.5
242	450	39.2	96.5	-.2	153.8	-63.8	-162.7
243	500	51.1	96.9	.2	113.6	-53.2	-152.8
244	550	63.2	93.4	1.8	-90.4	-52.7	-157.2
245	600	74.9	89.7	5.8	-78.8	-43.8	-166.4
246	625	80.6	88.1	9.4	-75.7	-38.3	-171.2
247	650	85.8	88.3	15.3	-72.6	-31.0	-173.8
248	675	92.5	88.2	23.7	-70.0	-22.5	-176.1
249	700	97.5	87.8	34.7	-67.7	-13.0	-178.1
250	725	101.6	86.8	48.1	-65.8	-2.8	-180.0
251	750	104.4	85.1	62.8	-64.2	7.2	-178.1
252	800	107.5	81.1	93.7	-63.0	25.7	174.1
253	850	108.0	77.2	122.3	-64.7	41.9	170.7
254	900	105.9	67.3	147.5	-68.7	56.8	167.1
255	950	93.7	59.6	124.4	-81.1	70.1	161.5
256	1000	85.5	-101.0	14.8	-108.7	73.7	153.1
257	1050	63.5	-110.9	14.6	-153.5	-16.7	137.5
258	1100	35.2	-120.7	11.5	173.3	-50.4	95.3
259	1150	10.2	-131.7	2.7	154.1	-48.3	30.0
260	1200	-15.5	-152.3	-5.6	139.6	-48.7	-2.0
261	1250	-25.5	163.1	-61.8	121.8	-37.4	-21.9
262	1300	-39.3	109.1	-114.8	89.2	-14.0	-44.1
263	1350	173.9	47.3	-111.5	6.4	91.6	-129.7
264	1400	165.5	-107.2	45.5	-122.3	-161.1	92.2
265	1450	-24.2	111.1	-165.0	86.3	-21.9	-73.5
266	1500	142.1	-112.6	-87.3	-83.5	127.2	113.5

REC = 51

HEADING = 150. DEG SHIP SPEED = 5. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.203	.200	2.597E+00	2.192E-01	9.887E-01	1.475E-03	4.432E-03	4.535E-04
.264	.250	9.818E-01	2.083E-01	9.753E-01	4.277E-03	1.032E-02	1.316E-03
.320	.300	4.379E-01	2.337E-01	9.622E-01	1.174E-02	2.046E-02	3.192E-03
.373	.350	2.220E-01	2.309E-01	9.396E-01	3.300E-02	3.676E-02	6.856E-03
.436	.400	1.282E-01	2.034E-01	8.956E-01	9.240E-02	6.100E-02	1.193E-02
.496	.450	6.179E-02	1.675E-01	8.242E-01	2.651E-01	9.379E-02	1.849E-02
.557	.500	5.641E-02	1.313E-01	7.242E-01	8.332E-01	1.332E-01	2.790E-02
.619	.550	4.703E-02	9.314E-02	6.015E-01	3.101E+00	1.732E-01	4.470E-02
.682	.600	4.091E-02	2.966E-02	4.941E-01	6.212E+00	2.151E-01	4.272E-02
.714	.625	3.857E-02	1.398E-02	4.436E-01	4.647E+00	2.343E-01	2.656E-02
.746	.650	3.632E-02	1.014E-02	3.954E-01	3.059E+00	2.502E-01	1.780E-02
.779	.675	3.398E-02	7.892E-03	3.506E-01	2.066E+00	2.612E-01	1.431E-02
.811	.700	3.143E-02	5.394E-03	3.099E-01	1.466E+00	2.661E-01	1.285E-02
.845	.725	2.861E-02	3.008E-03	2.733E-01	1.080E+00	2.634E-01	1.198E-02
.878	.750	2.522E-02	1.203E-03	2.401E-01	8.146E-01	2.524E-01	1.112E-02
.914	.800	1.875E-02	1.684E-04	1.778E-01	4.764E-01	2.046E-01	8.735E-03
.946	.850	1.132E-02	1.582E-03	1.174E-01	2.518E-01	1.345E-01	5.630E-03
1.014	.900	6.066E-03	3.035E-03	6.386E-02	1.220E-01	6.188E-02	2.893E-03
1.084	.950	2.363E-03	3.733E-03	4.515E-02	7.083E-02	1.242E-02	1.121E-03
1.155	1.000	7.374E-04	3.434E-03	6.928E-02	5.607E-02	1.117E-04	4.601E-04
1.227	1.050	2.494E-04	2.475E-03	7.687E-02	5.056E-02	7.320E-03	6.259E-04
1.301	1.100	2.708E-04	1.344E-03	4.711E-02	3.908E-02	1.375E-02	9.684E-04
1.375	1.150	2.628E-04	7.011E-04	1.361E-02	2.198E-02	1.235E-02	9.602E-04
1.451	1.200	1.865E-04	5.633E-04	1.119E-03	9.287E-03	6.298E-03	6.469E-04
1.527	1.250	9.773E-05	5.445E-04	2.321E-03	4.800E-03	1.360E-03	3.269E-04
1.605	1.300	4.892E-05	4.233E-04	3.989E-03	4.889E-03	3.270E-05	1.996E-04
1.684	1.400	4.866E-05	1.215E-04	3.805E-04	2.165E-03	1.266E-03	1.657E-04
1.846	1.600	1.296E-05	3.223E-05	1.226E-04	5.405E-04	2.179E-04	3.376E-05
2.182	1.800	7.072E-06	1.354E-05	3.723E-05	8.987E-05	2.142E-04	7.491E-06
2.537	2.000	5.624E-06	4.836E-06	2.645E-04	1.236E-05	5.302E-04	4.854E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.209	.200	7.2	89.2	.2	100.2	-89.6	-177.1
.264	.250	12.5	89.2	.2	106.8	-87.4	-179.3
.320	.300	19.4	90.2	.0	118.1	-85.4	-173.0
.378	.350	27.9	90.2	-.2	129.0	-83.6	-176.0
.436	.400	38.2	90.3	-.3	135.5	-81.6	-178.2
.496	.450	49.8	91.1	-.6	142.6	-79.0	-172.7
.557	.500	62.0	94.3	-1.2	152.1	-75.7	-168.9
.619	.550	73.5	104.4	-2.3	172.9	-71.7	-172.0
.682	.600	83.6	120.2	-4.2	134.1	-67.3	-163.5
.714	.625	87.9	108.9	-5.6	109.8	-64.7	-158.6
.746	.650	91.5	95.7	-7.4	94.9	-61.9	-163.5
.779	.675	94.7	89.0	-9.4	86.6	-58.8	-171.7
.811	.700	97.4	86.2	-11.8	82.2	-55.4	-179.8
.845	.725	99.6	85.7	-14.3	80.5	-51.6	173.0
.878	.750	101.3	89.1	-16.9	80.9	-47.5	166.4
.914	.800	103.6	-162.6	-21.8	87.0	-38.2	153.7
1.014	.850	104.3	-131.3	-26.7	-97.8	-26.5	142.7
1.084	.900	102.1	-129.3	-36.8	-114.1	-11.8	131.5
1.155	.950	93.5	-131.7	-63.4	-138.2	3.4	110.9
1.227	1.000	71.7	-138.0	-77.3	-163.3	-122.7	65.6
1.301	1.050	29.1	-150.0	-71.0	176.7	-139.2	14.1
1.375	1.100	-13.6	-171.5	-59.7	159.2	-127.5	-13.6
1.451	1.150	-41.4	154.1	-52.0	140.5	-114.9	-32.4
1.527	1.200	-64.8	114.5	-81.1	112.7	-102.0	-52.0
1.605	1.250	-93.5	83.4	-161.4	57.3	-86.5	-81.3
1.684	1.300	-135.4	57.7	-164.7	26.8	29.0	-125.0
1.845	1.400	139.6	-18.0	-144.7	-25.2	110.7	162.0
2.182	1.600	-25.1	166.4	43.6	164.4	-52.9	-14.4
2.537	1.800	169.1	-48.7	11.7	-63.5	-180.0	139.2
2.909	2.000	41.2	82.6	-114.5	34.9	55.5	-97.0

REC = 52
HEADING = 150. DEG
SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEVENT)**2

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.218	.200	2.192E+00	1.933E-01	9.843E-01	1.523E-03	4.967E-03	2.035E-04
.273	.250	7.973E-01	1.815E-01	9.723E-01	4.621E-03	1.114E-02	8.212E-04
.341	.300	3.427E-01	2.115E-01	9.695E-01	1.382E-02	2.117E-02	2.189E-03
.406	.350	1.673E-01	1.991E-01	9.540E-01	4.235E-02	3.758E-02	5.066E-03
.473	.400	9.233E-02	1.695E-01	9.183E-01	1.311E-01	6.241E-02	9.281E-03
.542	.450	5.729E-02	1.358E-01	8.573E-01	4.390E-01	9.645E-02	1.552E-02
.614	.500	4.026E-02	9.677E-02	7.711E-01	1.648E+00	1.371E-01	2.598E-02
.683	.550	3.181E-02	4.102E-02	7.017E-01	2.814E+00	1.854E-01	2.375E-02
.754	.600	2.700E-02	2.256E-02	6.469E-01	1.526E+00	2.378E-01	1.270E-02
.803	.625	2.513E-02	1.834E-02	6.249E-01	1.113E+00	2.622E-01	1.117E-02
.842	.650	2.333E-02	1.399E-02	6.070E-01	8.574E-01	2.830E-01	1.062E-02
.882	.675	2.159E-02	9.740E-03	5.913E-01	6.817E-01	2.979E-01	1.035E-02
.923	.700	1.954E-02	6.003E-03	5.733E-01	5.533E-01	3.045E-01	1.005E-02
.964	.725	1.742E-02	3.092E-03	5.483E-01	4.545E-01	3.005E-01	9.541E-03
1.005	.750	1.509E-02	1.357E-03	5.206E-01	3.507E-01	2.887E-01	8.664E-03
1.041	.800	1.008E-02	6.103E-05	4.104E-01	1.871E-01	2.296E-01	6.497E-03
1.079	.850	5.591E-03	3.766E-04	1.898E-01	9.354E-02	1.284E-01	4.291E-03
1.268	.900	2.597E-03	1.333E-03	3.147E-02	4.559E-02	4.428E-02	2.387E-03
1.363	.950	9.915E-04	2.003E-03	1.865E-02	2.483E-02	7.126E-03	9.926E-04
1.459	1.000	3.010E-04	1.768E-03	3.859E-02	1.899E-02	1.869E-04	3.345E-04
1.551	1.050	1.123E-04	1.144E-03	3.186E-02	1.714E-02	3.158E-03	3.187E-04
1.650	1.100	1.027E-04	5.673E-04	1.300E-02	1.275E-02	5.178E-03	4.481E-04
1.751	1.150	1.136E-04	2.503E-04	2.074E-03	6.613E-03	3.979E-03	4.172E-04
1.855	1.200	7.726E-05	1.818E-04	3.197E-04	2.253E-03	1.617E-03	2.448E-04
1.961	1.250	2.923E-05	1.766E-04	9.889E-04	1.155E-03	2.228E-04	9.969E-05
2.063	1.300	1.439E-05	1.277E-04	1.110E-03	1.547E-03	4.829E-05	5.693E-05
2.291	1.400	2.161E-05	2.733E-05	2.008E-05	5.649E-04	3.396E-04	4.899E-05
2.764	1.600	1.471E-05	1.369E-05	2.324E-05	2.079E-04	4.239E-04	1.372E-05
3.274	1.800	9.648E-06	7.174E-06	1.898E-05	1.472E-04	6.199E-04	8.742E-06
3.818	2.000	3.925E-06	5.609E-06	9.783E-05	2.521E-05	2.375E-04	3.226E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.213	.200	7.2	88.6	.3	100.6	-85.4	-170.2
.278	.250	12.5	88.7	.3	108.2	-83.6	-176.8
.341	.300	19.4	90.0	.0	123.1	-81.5	-166.3
.406	.350	27.9	90.1	.3	133.0	-79.7	-173.3
.473	.400	38.2	90.4	.5	141.8	-77.5	179.4
.542	.450	49.9	92.4	-1.0	153.4	-74.5	174.5
.614	.500	62.2	99.6	-1.8	177.9	-70.5	177.4
.683	.550	74.3	106.6	-3.1	-129.0	-65.8	-161.2
.764	.600	84.7	92.8	-4.8	-92.8	-59.8	-162.9
.803	.625	89.1	88.7	-5.6	-84.3	-56.2	-169.7
.842	.650	93.0	85.9	-6.2	-79.2	-52.2	-176.5
.882	.675	96.5	83.9	-6.4	-76.7	-47.7	177.2
.923	.700	99.4	82.4	-5.8	-76.0	-42.6	171.1
.964	.725	102.0	82.0	-4.4	-76.9	-37.1	165.2
1.006	.750	104.5	84.2	-1.5	-77.7	-30.3	161.0
1.091	.800	108.5	118.1	10.0	-80.4	-13.2	155.0
1.173	.850	109.1	-121.1	26.1	-37.9	6.8	147.8
1.263	.900	104.5	-116.4	25.3	-102.7	25.3	136.9
1.360	.950	93.4	-120.3	-38.7	-128.6	46.7	117.4
1.455	1.000	70.5	-128.6	-43.6	-160.7	166.5	77.6
1.551	1.050	26.1	-140.3	-33.1	176.3	-125.1	25.4
1.650	1.100	-20.2	-159.3	-24.7	160.1	-108.4	-3.0
1.751	1.150	-45.0	165.6	-26.8	142.2	-91.2	-22.0
1.855	1.200	-62.9	120.4	-102.6	111.3	-75.3	-42.2
1.961	1.250	-89.9	86.6	-138.1	53.5	-54.8	-74.6
2.063	1.300	-149.4	59.8	-138.3	11.4	99.4	-126.8
2.291	1.400	144.0	-26.9	-170.6	-42.0	139.4	158.1
2.764	1.600	3.8	147.0	153.6	137.2	-2.4	-32.5
3.274	1.800	-165.4	-62.6	19.6	-79.0	-162.9	115.4
3.818	2.000	34.7	62.7	-110.5	125.3	53.4	-71.5

REC = 53

HEADING = 150. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.200	1.863E+00	1.694E-01	9.833E-01	1.553E-03	5.528E-03	6.425E-05
.293	.250	6.538E-01	1.707E-01	9.774E-01	4.955E-03	1.171E-02	3.849E-04
.361	.300	2.719E-01	1.864E-01	9.824E-01	1.636E-02	2.160E-02	1.445E-03
.434	.350	1.291E-01	1.693E-01	9.762E-01	5.455E-02	3.799E-02	3.778E-03
.509	.400	6.904E-02	1.401E-01	9.524E-01	1.851E-01	6.319E-02	7.541E-03
.588	.450	4.173E-02	1.050E-01	9.076E-01	6.545E-01	9.788E-02	1.347E-02
.671	.500	2.874E-02	5.882E-02	8.695E-01	1.294E+00	1.414E-01	1.525E-02
.756	.550	2.228E-02	3.454E-02	8.711E-01	8.795E-01	1.959E-01	9.359E-03
.846	.600	1.849E-02	2.307E-02	9.360E-01	5.503E-01	2.546E-01	8.624E-03
.891	.625	1.698E-02	1.773E-02	9.355E-01	4.590E-01	2.813E-01	8.597E-03
.938	.650	1.552E-02	1.274E-02	9.657E-01	3.920E-01	3.026E-01	8.602E-03
.986	.675	1.401E-02	8.463E-03	9.892E-01	3.346E-01	3.159E-01	8.444E-03
1.034	.700	1.232E-02	5.478E-03	1.031E+00	2.614E-01	3.240E-01	7.875E-03
1.084	.725	1.050E-02	3.250E-03	1.033E+00	2.033E-01	3.146E-01	7.265E-03
1.134	.750	8.605E-03	1.884E-03	9.451E-01	1.568E-01	2.831E-01	6.606E-03
1.237	.800	5.135E-03	1.487E-04	5.034E-01	8.933E-02	1.710E-01	5.170E-03
1.343	.850	2.736E-03	1.375E-04	1.105E-01	4.756E-02	7.126E-02	3.591E-03
1.452	.900	1.244E-03	6.303E-04	1.929E-03	1.883E-02	1.961E-02	1.720E-03
1.566	.950	4.709E-04	9.268E-04	1.137E-02	8.582E-03	2.543E-03	6.094E-04
1.682	1.000	1.417E-04	8.588E-04	1.713E-02	6.940E-03	3.350E-04	1.830E-04
1.802	1.050	7.170E-05	5.283E-04	8.735E-03	7.039E-03	1.815E-03	1.513E-04
1.925	1.100	7.913E-05	2.289E-04	2.485E-03	5.160E-03	2.276E-03	2.062E-04
2.052	1.150	6.914E-05	8.714E-05	3.103E-04	2.399E-03	1.441E-03	1.794E-04
2.182	1.200	3.452E-05	6.825E-05	2.913E-04	7.838E-04	3.975E-04	9.623E-05
2.316	1.250	1.642E-05	7.328E-05	4.528E-04	6.007E-04	2.040E-05	3.497E-05
2.453	1.300	1.625E-05	5.190E-05	3.102E-04	8.627E-04	1.178E-04	2.456E-05
2.737	1.400	1.261E-05	1.797E-05	3.993E-05	2.865E-04	3.747E-04	2.557E-05
3.346	1.600	1.202E-05	1.044E-05	8.581E-05	1.835E-04	5.160E-04	1.215E-05
4.011	1.800	5.035E-06	4.407E-06	2.273E-05	1.418E-04	1.352E-04	7.290E-06
4.728	2.000	2.323E-06	2.407E-06	1.023E-05	2.608E-05	3.540E-05	1.909E-06

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.227	.205	7.1	88.0	.3	101.8	-81.2	-154.5
.293	.250	12.4	88.9	.2	113.7	-79.4	-159.9
.351	.300	19.3	89.9	-.1	129.6	-77.4	-158.9
.434	.350	27.9	90.1	-.4	140.4	-75.8	-170.5
.509	.400	38.2	91.1	-.7	152.5	-73.5	-178.5
.589	.450	50.0	95.1	-1.3	175.0	-70.0	-179.2
.671	.500	62.9	101.5	-2.0	-139.3	-65.4	-164.2
.755	.550	75.4	95.2	-2.8	-100.3	-59.4	-160.3
.846	.600	86.2	89.2	-2.6	-92.8	-51.4	-170.4
.891	.625	90.9	86.9	-1.6	-73.6	-46.6	-176.2
.938	.650	95.1	84.9	.3	-75.4	-41.1	178.1
.986	.675	99.0	83.3	3.6	-73.7	-34.9	172.7
1.034	.700	103.1	83.7	9.2	-74.2	-26.8	170.0
1.084	.725	106.6	83.8	17.3	-73.4	-17.5	167.5
1.134	.750	109.5	83.6	28.1	-73.2	-7.2	165.0
1.187	.800	111.9	81.1	54.5	-75.0	14.4	159.4
1.243	.850	109.6	-97.7	78.8	-81.2	33.5	151.9
1.452	.900	103.8	-108.0	70.2	-93.2	53.2	142.9
1.556	.950	92.2	-114.3	-35.2	-131.4	80.2	126.7
1.682	1.000	69.4	-121.6	-24.8	-153.9	-162.1	99.2
1.802	1.050	20.7	-134.4	-10.2	169.9	-98.0	31.2
1.925	1.100	-15.6	-154.8	-5.2	153.0	-80.0	.4
2.052	1.150	-36.2	166.6	-26.6	134.0	-67.0	-18.9
2.182	1.200	-61.9	114.8	-98.6	95.0	-61.5	-41.4
2.319	1.250	-105.7	79.6	-115.5	32.8	-94.9	-79.7
2.453	1.300	-157.0	50.8	-120.8	-3.8	151.6	-141.1
2.737	1.400	156.6	-53.5	51.7	-61.9	171.1	144.6
3.346	1.600	3.6	133.2	156.6	112.4	-3.2	-53.7
4.011	1.800	163.3	-60.9	7.9	-80.4	-176.1	113.9
4.728	2.000	1.9	43.6	-142.8	127.9	21.9	-62.9

REC = 54 HEADING = 150. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/NAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.235	.200	1.594E+00	1.475E-01	9.842E-01	1.582E-03	6.070E-03	1.861E-05
.307	.250	5.413E-01	1.548E-01	9.878E-01	5.285E-03	1.210E-02	1.757E-04
.332	.300	2.185E-01	1.614E-01	1.002E+00	1.948E-02	2.167E-02	9.554E-04
.461	.350	1.009E-01	1.431E-01	1.007E+00	7.122E-02	3.784E-02	2.887E-03
.545	.400	5.263E-02	1.154E-01	9.984E-01	2.607E-01	6.311E-02	6.438E-03
.634	.450	3.103E-02	7.581E-02	9.759E-01	8.414E-01	9.784E-02	1.086E-02
.727	.500	2.105E-02	4.318E-02	1.019E+00	7.445E-01	1.439E-01	7.787E-03
.825	.550	1.601E-02	3.058E-02	1.114E+00	4.503E-01	2.009E-01	6.269E-03
.922	.600	1.294E-02	1.989E-02	1.272E+00	3.212E-01	2.604E-01	6.516E-03
.993	.650	1.171E-02	1.484E-02	1.358E+00	2.829E-01	2.850E-01	6.701E-03
1.034	.650	1.045E-02	1.082E-02	1.495E+00	2.259E-01	3.078E-01	6.452E-03
1.089	.675	9.023E-03	7.577E-03	1.500E+00	1.813E-01	3.157E-01	6.197E-03
1.145	.700	7.572E-03	5.024E-03	1.588E+00	1.436E-01	3.007E-01	5.917E-03
1.203	.725	6.125E-03	3.075E-03	1.388E+00	1.167E-01	2.605E-01	5.605E-03
1.261	.750	4.816E-03	1.660E-03	1.026E+00	9.333E-02	2.042E-01	5.260E-03
1.382	.800	2.788E-03	2.039E-04	3.140E-01	5.319E-02	9.745E-02	4.054E-03
1.507	.850	1.465E-03	2.906E-05	3.541E-02	2.283E-02	3.527E-02	2.385E-03
1.636	.900	6.803E-04	2.792E-04	3.266E-04	8.101E-03	8.844E-03	1.125E-03
1.771	.950	2.527E-04	4.639E-04	6.559E-03	3.697E-03	5.167E-04	3.580E-04
1.909	1.000	9.290E-05	4.226E-04	6.199E-03	3.703E-03	3.673E-04	8.459E-05
2.052	1.050	5.321E-05	2.543E-04	2.907E-03	3.749E-03	1.153E-03	7.415E-05
2.200	1.100	5.309E-05	1.067E-04	7.866E-04	2.704E-03	9.740E-04	1.089E-04
2.352	1.150	3.382E-05	3.727E-05	2.410E-04	1.241E-03	4.433E-04	9.201E-05
2.503	1.200	1.374E-05	3.730E-05	2.409E-04	4.588E-04	8.965E-05	4.336E-05
2.671	1.250	6.745E-06	4.451E-05	3.825E-04	4.638E-04	3.378E-05	1.687E-05
2.837	1.300	1.291E-05	2.980E-05	2.567E-04	6.097E-04	2.598E-04	1.837E-05
3.192	1.400	1.004E-05	1.220E-05	4.813E-05	2.470E-04	4.458E-04	1.732E-05
3.927	1.600	6.228E-06	7.854E-06	1.829E-05	1.687E-04	1.489E-04	1.028E-05
4.747	1.800	3.037E-06	1.737E-06	4.034E-06	1.147E-04	3.632E-05	5.305E-06
5.636	2.000	1.307E-06	2.126E-06	1.191E-06	2.211E-05	8.859E-06	1.828E-06

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.236	.200	7.1	87.5	.2	103.0	-76.6	-105.7
.307	.250	12.4	88.9	.1	119.3	-74.8	-132.0
.382	.300	19.3	89.9	-.2	135.5	-73.2	-150.7
.461	.350	27.9	90.3	-.4	146.9	-71.9	-167.8
.545	.400	38.3	92.4	-.7	153.7	-69.5	-175.5
.634	.450	50.4	98.4	-1.1	-159.3	-65.6	-168.3
.727	.500	63.9	97.7	-1.3	-110.2	-60.2	-154.7
.825	.550	76.8	91.7	-.6	-85.2	-52.7	-162.1
.927	.600	88.1	87.1	3.0	-75.0	-42.7	-173.7
.980	.625	93.1	85.0	6.5	-73.1	-36.6	-179.6
1.034	.650	98.5	85.2	12.6	-70.6	-28.5	-177.6
1.083	.675	103.3	85.1	21.5	-68.6	-19.0	-175.2
1.145	.700	107.4	84.5	33.4	-67.2	-8.3	-172.9
1.203	.725	110.4	83.2	47.7	-66.3	3.0	-170.7
1.261	.750	112.1	80.4	63.3	-65.9	13.9	-168.2
1.382	.800	112.4	68.8	95.0	-68.3	33.9	-162.8
1.507	.850	109.6	-82.7	125.3	-77.0	52.6	-157.4
1.636	.900	103.2	-102.0	-71.0	-95.6	72.3	-149.7
1.771	.950	87.7	-110.7	-15.2	-135.2	99.7	-133.6
1.903	1.000	55.7	-120.1	-.1	-173.4	-92.6	-92.3
2.052	1.050	14.7	-132.6	6.3	-164.3	-73.4	-29.8
2.200	1.100	-13.7	-155.1	-5.0	-146.2	-62.0	-22.5
2.352	1.150	-38.0	-160.5	-48.1	-123.5	-56.2	-22.6
2.503	1.200	-66.9	101.0	-98.7	79.5	-40.9	-49.1
2.671	1.250	-130.7	66.3	-112.7	21.5	103.7	-100.6
2.837	1.300	-172.6	37.5	-105.9	-10.4	133.1	-158.0
3.182	1.400	169.2	-66.1	-3.2	-77.7	173.7	-128.7
3.927	1.600	-15.5	138.1	152.6	106.3	-12.7	-56.8
4.747	1.800	153.5	-57.2	-24.5	-81.5	161.7	-115.8
5.636	2.000	-3.0	32.7	-162.2	120.5	-2.1	-69.1

REC = 55 HEADING = 150. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/WAVEHT)**2

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.245	.200	1.371E+00	1.273E-01	9.905E-01	1.547E-03	6.563E-03	3.138E-05
.321	.250	4.518E-01	1.389E-01	1.004E+00	5.542E-03	1.222E-02	1.369E-04
.402	.300	1.775E-01	1.383E-01	1.028E+00	2.329E-02	2.130E-02	6.578E-04
.489	.350	7.999E-02	1.265E-01	1.045E+00	9.507E-02	3.704E-02	2.303E-03
.582	.400	4.079E-02	9.330E-02	1.053E+00	3.884E-01	6.212E-02	5.725E-03
.680	.450	2.361E-02	5.415E-02	1.088E+00	7.016E-01	9.673E-02	5.665E-03
.784	.500	1.572E-02	3.544E-02	1.205E+00	4.230E-01	1.429E-01	4.563E-03
.894	.550	1.171E-02	2.650E-02	1.420E+00	2.799E-01	1.995E-01	4.606E-03
1.009	.600	9.188E-03	1.655E-02	1.738E+00	2.074E-01	2.575E-01	4.997E-03
1.069	.625	8.047E-03	1.263E-02	1.964E+00	1.681E-01	2.810E-01	4.928E-03
1.130	.650	6.900E-03	9.309E-03	2.122E+00	1.376E-01	2.886E-01	4.868E-03
1.193	.675	5.737E-03	6.605E-03	2.076E+00	1.135E-01	2.725E-01	4.806E-03
1.257	.700	4.630E-03	4.436E-03	1.747E+00	9.421E-02	2.330E-01	4.737E-03
1.322	.725	3.672E-03	2.741E-03	1.233E+00	7.872E-02	1.817E-01	4.660E-03
1.383	.750	2.833E-03	1.468E-03	7.203E-01	5.963E-02	1.296E-01	4.107E-03
1.527	.800	1.631E-03	2.349E-04	1.405E-01	2.960E-02	5.589E-02	2.816E-03
1.671	.850	8.731E-04	4.828E-06	9.835E-03	1.185E-02	1.885E-02	1.642E-03
1.820	.900	3.764E-04	1.328E-04	1.028E-03	3.935E-03	2.784E-03	6.936E-04
1.979	.950	1.435E-04	2.441E-04	3.934E-03	2.030E-03	1.117E-03	1.958E-04
2.137	1.000	6.457E-05	2.414E-04	2.891E-03	2.345E-03	3.304E-04	3.893E-05
2.303	1.050	4.562E-05	1.496E-04	1.198E-03	2.411E-03	6.252E-04	4.474E-05
2.475	1.100	3.535E-05	5.267E-05	3.607E-04	1.716E-03	5.621E-04	6.627E-05
2.653	1.150	1.926E-05	2.091E-05	5.057E-05	7.889E-04	3.244E-04	5.096E-05
2.836	1.200	5.741E-06	2.966E-05	1.795E-04	3.579E-04	1.095E-04	2.392E-05
3.026	1.250	1.931E-06	3.103E-05	3.248E-04	3.966E-04	8.755E-05	1.208E-05
3.221	1.300	7.485E-06	2.187E-05	2.875E-04	4.343E-04	2.588E-04	1.487E-05
3.428	1.400	6.607E-06	1.269E-05	3.361E-05	2.254E-04	2.637E-04	1.571E-05
4.509	1.600	3.476E-06	5.075E-06	7.403E-06	1.336E-04	5.209E-05	8.535E-06
5.484	1.800	1.464E-06	1.462E-06	5.682E-07	9.054E-05	8.997E-06	4.557E-06
6.543	2.000	8.478E-07	1.198E-06	3.434E-07	1.425E-05	4.915E-06	1.124E-06

PHASE (MOTION-AVEAHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
245	200	7.1	87.0	.2	103.8	-71.6	-50.9
321	250	12.4	88.9	.0	125.0	-69.9	-94.0
402	300	19.3	89.9	-1	141.3	-68.9	-141.7
483	350	27.9	90.8	-2	154.0	-68.0	-165.0
562	400	38.4	94.5	-4	178.3	-65.7	-170.1
643	450	51.1	100.0	-4	-130.5	-61.5	-153.6
724	500	65.0	94.6	.4	-92.3	-55.0	-152.3
804	550	78.2	89.9	3.6	-75.8	-46.1	-163.9
885	600	93.5	85.8	11.6	-69.1	-33.6	-174.8
966	625	96.7	87.1	19.5	-66.3	-24.8	-177.6
1047	650	102.2	86.9	30.6	-64.1	-14.7	-179.9
1128	675	105.8	86.1	44.7	-62.2	-3.4	177.9
1209	700	110.0	84.4	61.0	-60.8	8.0	175.7
1290	725	111.9	81.3	77.8	-59.7	18.7	173.2
1371	750	113.1	79.4	95.8	-60.4	29.3	171.1
1452	800	112.8	73.3	128.6	-64.2	49.5	167.2
1533	850	109.3	-42.8	161.9	-72.5	66.6	162.6
1614	900	99.0	-101.3	-2.7	-98.1	83.5	153.9
1695	950	73.4	-110.9	8.0	-143.5	84.9	137.6
1776	1000	46.7	-121.5	11.4	179.8	-65.7	89.8
1857	1050	13.1	-135.3	6.8	158.2	-56.1	21.1
1938	1100	-12.3	-161.2	-5.8	140.4	-49.7	-8.4
2019	1150	-31.0	138.9	-68.7	116.2	-35.4	-30.7
2100	1200	-55.9	89.6	-114.0	69.2	-5	-61.3
2181	1250	-131.2	61.7	-112.6	19.7	74.5	-113.4
2262	1300	178.3	26.7	-101.9	-12.4	120.6	-166.1
2343	1400	164.9	-69.6	-5.3	-83.7	173.0	121.4
2424	1500	-10.8	136.5	140.2	105.3	-21.3	-52.5
2505	1600	145.8	-81.3	-99.5	-82.1	139.4	115.3
2586	1700	-17.5	44.9	167.7	116.6	-23.4	-75.6

REC = 56

HEADING = 165. DEG SHIP SPEED = 5. KNOTS
RPO (NOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	2.545E+00	5.789E-02	9.864E-01	4.016E-04	5.423E-03	1.542E-04
.256	.250	9.577E-01	5.468E-02	9.597E-01	1.184E-03	1.266E-02	4.354E-04
.323	.300	4.262E-01	5.128E-02	9.513E-01	3.374E-03	2.510E-02	1.063E-03
.341	.350	2.169E-01	5.945E-02	9.192E-01	9.863E-03	4.497E-02	2.234E-03
.441	.400	1.254E-01	5.123E-02	8.616E-01	2.853E-02	7.398E-02	3.795E-03
.501	.450	8.302E-02	4.115E-02	7.734E-01	8.469E-02	1.120E-01	5.749E-03
.563	.500	6.283E-02	3.178E-02	6.562E-01	2.953E-01	1.552E-01	8.600E-03
.627	.550	5.269E-02	2.378E-02	5.202E-01	1.350E+00	1.947E-01	1.520E-02
.691	.600	4.666E-02	3.569E-03	4.063E-01	2.843E+00	2.329E-01	1.251E-02
.724	.625	4.387E-02	1.016E-03	3.533E-01	1.604E+00	2.466E-01	5.604E-03
.757	.650	4.086E-02	9.929E-04	3.045E-01	8.894E-01	2.546E-01	3.504E-03
.791	.675	3.751E-02	7.577E-04	2.609E-01	5.476E-01	2.554E-01	2.941E-03
.824	.700	3.376E-02	3.859E-04	2.227E-01	3.647E-01	2.479E-01	2.725E-03
.858	.725	2.964E-02	1.025E-04	1.892E-01	2.547E-01	2.314E-01	2.529E-03
.893	.750	2.525E-02	1.990E-05	1.593E-01	1.823E-01	2.062E-01	2.264E-03
.962	.800	1.633E-02	4.546E-04	1.044E-01	9.802E-02	1.360E-01	1.526E-03
1.033	.850	8.432E-03	9.704E-04	6.122E-02	4.685E-02	6.282E-02	7.641E-04
1.105	.900	3.224E-03	1.158E-03	4.563E-02	2.563E-02	1.189E-02	2.705E-04
1.173	.950	9.294E-04	1.011E-03	7.272E-02	1.928E-02	5.742E-04	1.065E-04
1.254	1.000	3.837E-04	6.761E-04	8.949E-02	1.634E-02	1.189E-02	1.758E-04
1.330	1.050	3.803E-04	3.784E-04	5.430E-02	1.235E-02	1.900E-02	3.011E-04
1.407	1.100	3.469E-04	2.041E-04	1.373E-02	6.394E-03	1.492E-02	2.765E-04
1.485	1.150	2.160E-04	1.786E-04	8.071E-04	2.619E-03	6.139E-03	1.670E-04
1.565	1.200	1.014E-04	1.644E-04	4.065E-03	1.711E-03	7.243E-04	8.225E-05
1.646	1.250	5.975E-05	1.115E-04	5.143E-03	1.742E-03	3.240E-04	6.213E-05
1.729	1.300	6.267E-05	5.625E-05	1.994E-03	1.205E-03	1.521E-03	6.174E-05
1.897	1.350	3.175E-05	3.210E-05	3.271E-04	2.360E-04	4.544E-04	2.005E-05
2.043	1.400	3.784E-06	6.119E-06	6.703E-05	5.125E-05	6.204E-05	5.362E-06
2.622	1.800	1.047E-05	1.332E-06	1.581E-04	4.025E-05	2.587E-04	2.381E-06
3.014	2.000	1.351E-05	1.159E-06	2.816E-04	1.903E-05	8.382E-04	1.215E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.210	.200	8.5	89.1	.2	101.2	-89.2	-177.3
.266	.250	14.5	89.1	.2	108.1	-87.0	-179.1
.323	.300	22.4	90.1	.0	119.8	-85.0	-174.1
.381	.350	32.2	90.1	.2	129.1	-83.0	-177.5
.441	.400	43.9	90.2	.4	135.5	-80.7	-176.5
.501	.450	56.8	91.2	.8	140.9	-77.8	-170.7
.563	.500	69.7	95.0	1.6	148.1	-74.2	-166.1
.627	.550	81.3	109.3	3.1	167.5	-69.8	-168.9
.691	.600	90.7	142.5	5.9	-123.0	-64.9	-153.7
.724	.625	94.5	108.5	7.8	-97.2	-62.0	-152.7
.757	.650	97.7	87.5	10.3	-85.1	-58.8	-154.5
.791	.675	100.3	82.9	13.2	-79.7	-55.3	-176.6
.824	.700	102.4	83.7	16.5	-78.0	-51.4	-173.7
.858	.725	104.1	93.6	20.1	-78.9	-47.2	-165.7
.893	.750	105.2	174.4	23.9	-82.0	-42.5	-158.5
.926	.800	106.0	-131.3	32.2	-94.4	-32.0	-143.8
.963	.850	104.2	-131.4	45.4	-111.9	-18.3	-130.6
1.005	.900	96.3	-134.4	71.7	-136.6	-1.9	-108.7
1.173	.950	73.4	-141.0	87.8	-162.5	-156.6	56.9
1.254	1.000	26.6	-153.8	81.1	178.7	-144.1	4.8
1.330	1.050	-15.0	-177.8	67.9	159.1	-129.8	-20.6
1.407	1.100	-41.8	133.5	58.1	137.4	-115.1	-39.7
1.485	1.150	-67.0	103.2	-110.8	103.1	-99.7	-62.3
1.565	1.200	-101.7	72.9	-171.1	54.7	-76.7	-98.2
1.646	1.250	-151.8	44.9	-167.5	19.2	75.9	-145.3
1.729	1.300	161.7	7.5	-158.6	-6.4	101.6	-177.3
1.897	1.400	99.9	-83.8	19.3	-112.6	136.0	-102.9
2.249	1.600	-99.5	74.7	-125.4	38.5	-11.7	-107.3
2.622	1.800	-4.0	-160.2	105.2	-151.5	-48.9	-18.7
3.014	2.000	-169.3	-52.3	12.7	-40.1	-165.4	133.8

REC = 57

HEADING = 165. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/WAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.220	.200	2.110E+00	5.045E-02	9.822E-01	4.180E-04	6.003E-03	7.274E-05
.282	.250	7.608E-01	4.800E-02	9.683E-01	1.299E-03	1.350E-02	2.676E-04
.346	.300	3.253E-01	5.482E-02	9.603E-01	4.108E-03	2.586E-02	7.377E-04
.412	.350	1.595E-01	5.050E-02	9.361E-01	1.318E-02	4.598E-02	1.645E-03
.481	.400	8.901E-02	4.205E-02	8.879E-01	4.310E-02	7.594E-02	2.928E-03
.553	.450	5.702E-02	3.323E-02	8.118E-01	1.610E-01	1.157E-01	4.893E-03
.627	.500	4.186E-02	2.381E-02	7.105E-01	8.250E-01	1.602E-01	9.295E-03
.703	.550	3.442E-02	5.393E-02	6.358E-01	1.237E+00	2.128E-01	6.183E-03
.783	.600	2.964E-02	3.659E-02	5.721E-01	4.520E-01	2.525E-01	2.636E-03
.823	.625	2.745E-02	2.914E-02	5.463E-01	3.090E-01	2.818E-01	2.448E-03
.864	.650	2.517E-02	2.099E-02	5.232E-01	2.265E-01	2.943E-01	2.409E-03
.906	.675	2.270E-02	1.164E-02	4.994E-01	1.732E-01	2.975E-01	2.360E-03
.949	.700	2.001E-02	5.203E-04	4.684E-01	1.353E-01	2.891E-01	2.244E-03
.992	.725	1.711E-02	1.521E-04	4.294E-01	1.033E-01	2.698E-01	2.035E-03
1.035	.750	1.400E-02	2.283E-05	3.854E-01	7.244E-02	2.425E-01	1.750E-03
1.125	.800	8.048E-03	1.024E-04	2.223E-01	3.411E-02	1.522E-01	1.147E-02
1.216	.850	3.677E-03	3.759E-04	4.970E-02	1.563E-02	5.659E-02	6.132E-04
1.311	.900	1.348E-03	5.964E-04	2.073E-02	8.464E-03	8.893E-03	2.538E-04
1.408	.950	3.822E-04	5.335E-04	4.754E-02	6.339E-03	2.789E-04	8.787E-05
1.507	1.000	1.430E-04	3.265E-04	3.891E-02	5.516E-03	4.476E-03	9.742E-05
1.609	1.050	1.394E-04	1.502E-04	1.490E-02	3.917E-03	6.705E-03	1.348E-04
1.714	1.100	1.405E-04	6.948E-05	1.905E-03	1.766E-03	4.650E-03	1.163E-04
1.821	1.150	8.786E-05	5.693E-05	4.497E-04	5.627E-04	1.496E-03	5.947E-05
1.930	1.200	3.142E-05	5.166E-05	1.387E-03	4.119E-04	9.003E-05	2.337E-05
2.043	1.250	2.106E-05	3.084E-05	1.124E-03	4.947E-04	2.049E-04	1.789E-05
2.157	1.300	3.327E-05	1.259E-05	2.528E-04	3.147E-04	5.068E-04	1.801E-05
2.294	1.400	1.395E-05	9.781E-06	2.010E-04	1.025E-04	4.508E-05	4.791E-06
2.398	1.600	1.376E-06	3.220E-06	2.432E-04	3.724E-05	2.562E-04	2.616E-06
3.444	1.800	1.172E-05	2.521E-06	3.068E-04	1.133E-05	6.766E-04	1.380E-06
4.028	2.000	4.439E-06	1.318E-07	6.665E-05	3.232E-05	1.918E-04	1.439E-06

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.220	.200	8.4	88.5	.2	101.7	-85.4	-170.8
.282	.250	14.5	88.8	.2	110.0	-83.4	-175.1
.345	.300	22.3	89.9	-.1	124.6	-81.2	-168.0
.412	.350	32.1	89.9	-.3	133.5	-79.3	-175.2
.481	.400	43.8	90.4	-.7	140.7	-76.8	177.3
.553	.450	55.9	92.9	-1.3	150.3	-73.3	171.8
.627	.500	63.9	104.6	-2.4	176.1	-68.8	176.2
.703	.550	82.1	110.7	-4.1	-112.9	-63.4	-151.0
.783	.600	91.8	86.4	-6.3	-80.1	-56.6	-164.9
.823	.625	95.3	83.1	-7.2	-74.4	-52.5	-174.7
.864	.650	99.3	81.1	-7.8	-71.8	-47.8	177.2
.905	.675	102.2	79.8	-7.7	-71.5	-42.7	170.1
.949	.700	104.7	79.8	-6.7	-73.0	-36.9	163.5
.992	.725	106.9	84.5	-4.4	-75.4	-30.3	157.8
1.035	.750	108.9	107.5	-.3	-77.1	-22.1	154.5
1.125	.800	110.9	-125.2	12.7	-84.6	-2.3	147.2
1.216	.850	107.8	-119.4	17.7	-99.9	19.6	136.5
1.311	.900	97.1	-121.9	-40.2	-124.9	42.1	115.6
1.408	.950	73.0	-130.4	-43.5	-156.9	176.3	70.6
1.507	1.000	25.2	-143.5	-35.6	179.1	-125.1	17.5
1.609	1.050	-21.0	-163.4	-24.3	161.6	-107.0	-9.2
1.714	1.100	-47.9	155.6	-26.2	142.0	-90.7	-27.6
1.821	1.150	-63.1	109.8	-123.8	102.6	-72.1	-51.0
1.930	1.200	-102.4	77.6	-142.3	42.5	-37.0	-91.7
2.043	1.250	-167.0	49.0	-139.0	7.1	106.4	-146.1
2.157	1.300	158.0	6.2	-130.5	-18.9	130.3	175.2
2.294	1.400	87.9	-105.1	66.6	-140.3	157.7	89.5
2.498	1.500	155.9	50.5	-91.9	23.1	86.7	-125.5
2.744	1.600	-20.4	-164.9	123.7	163.7	-47.7	-1.1
3.028	1.800	177.7	-40.1	8.5	-44.2	-170.3	137.8

REC = 58 HEADING = 165. DEG SHIP SPEED = 15. KNOTS
PAO (MOTION/HAVENT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	1.764E+00	4.391E-02	9.809E-01	4.312E-04	6.582E-03	2.505E-05
.293	.250	6.119E-01	4.482E-02	9.748E-01	1.426E-03	1.406E-02	1.339E-04
.363	.300	2.526E-01	4.774E-02	9.753E-01	5.046E-03	2.628E-02	4.961E-04
.443	.350	1.198E-01	4.235E-02	9.616E-01	1.747E-02	4.648E-02	1.231E-03
.522	.400	6.488E-02	3.441E-02	9.275E-01	6.742E-02	7.707E-02	2.409E-03
.604	.450	4.045E-02	2.555E-02	8.706E-01	3.115E-01	1.176E-01	4.665E-03
.690	.500	2.916E-02	1.036E-02	8.339E-01	6.317E-01	1.681E-01	4.503E-03
.781	.550	2.345E-02	6.209E-03	8.332E-01	2.899E-01	2.277E-01	2.188E-03
.874	.600	1.969E-02	4.022E-03	8.164E-01	1.594E-01	2.846E-01	2.006E-03
.922	.650	1.795E-02	2.847E-03	8.885E-01	1.282E-01	3.054E-01	2.028E-03
.971	.700	1.615E-02	1.798E-03	8.999E-01	1.068E-01	3.164E-01	2.017E-03
1.022	.750	1.413E-02	1.074E-03	9.233E-01	8.036E-02	3.211E-01	1.894E-03
1.073	.770	1.193E-02	5.735E-04	9.148E-01	5.982E-02	3.091E-01	1.734E-03
1.125	.723	9.631E-03	2.463E-04	8.559E-01	4.417E-02	2.744E-01	1.553E-03
1.178	.750	7.405E-03	6.528E-05	6.390E-01	3.223E-02	2.192E-01	1.358E-03
1.287	.800	3.885E-03	2.656E-05	1.892E-01	1.638E-02	9.884E-02	9.483E-04
1.403	.850	1.734E-03	1.882E-04	7.930E-02	6.838E-03	2.767E-02	4.831E-04
1.515	.900	6.268E-04	2.804E-04	1.191E-02	2.983E-03	3.474E-03	1.618E-04
1.637	.950	1.775E-04	2.521E-04	2.124E-02	2.310E-03	4.936E-04	4.666E-05
1.761	1.000	7.822E-05	1.494E-04	1.127E-02	2.173E-03	2.403E-03	4.572E-05
1.883	1.050	9.191E-05	5.964E-05	2.781E-03	1.474E-03	2.815E-03	6.047E-05
2.020	1.100	8.186E-05	2.362E-05	2.204E-04	5.929E-04	1.635E-03	4.688E-05
2.156	1.150	3.834E-05	2.130E-05	3.526E-04	1.908E-04	3.466E-04	2.146E-05
2.295	1.200	1.842E-05	2.052E-05	5.217E-04	2.105E-04	4.421E-06	7.828E-06
2.433	1.250	2.090E-05	1.167E-05	2.886E-04	2.542E-04	1.947E-04	7.668E-06
2.583	1.300	2.287E-05	5.192E-06	1.042E-05	1.522E-04	4.214E-04	8.712E-06
2.891	1.400	1.838E-06	6.949E-06	3.034E-04	7.713E-05	1.389E-04	3.057E-06
3.547	1.600	1.162E-06	3.550E-06	1.921E-04	2.059E-05	2.498E-04	2.159E-06
4.266	1.800	1.410E-06	2.143E-06	4.190E-05	5.905E-06	6.198E-05	5.885E-07
5.042	2.000	1.867E-06	6.068E-07	5.657E-06	2.294E-05	2.706E-05	8.794E-07

PHASE (MOTION-WAVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.230	.200	8.4	88.0	.3	103.3	-81.4	-155.7
.235	.250	14.4	89.0	.1	115.9	-79.4	-159.0
.238	.300	22.3	89.8	-.2	130.7	-77.4	-161.7
.443	.350	32.1	90.0	-.5	139.9	-75.5	-173.1
.522	.400	43.9	91.3	-.9	150.2	-72.7	-178.8
.634	.450	57.1	97.6	-1.6	173.4	-68.6	-179.1
.690	.500	70.9	106.2	-2.6	-124.8	-63.3	-155.1
.730	.550	83.3	91.1	-3.4	-85.2	-58.3	-159.5
.874	.600	93.5	84.9	-2.7	-72.4	-47.1	-175.4
.922	.625	97.8	82.7	-1.0	-70.4	-41.5	-177.7
.971	.650	101.6	80.8	2.0	-70.3	-35.2	-171.2
1.022	.675	105.5	81.1	7.2	-69.5	-27.1	-167.6
1.073	.700	109.0	81.7	15.2	-69.1	-17.5	-164.8
1.125	.725	111.8	82.2	26.1	-69.5	-6.7	-162.1
1.178	.750	113.6	82.9	39.3	-70.7	4.9	-159.2
1.227	.800	112.9	-102.9	66.8	-76.6	27.3	-152.0
1.401	.850	107.5	-108.5	76.2	-92.9	48.8	-141.9
1.515	.900	95.9	-115.4	-37.2	-125.3	78.0	-124.7
1.637	.950	71.8	-123.3	-25.7	-150.7	-160.8	82.7
1.761	1.000	21.1	-136.5	-11.1	175.0	-103.0	24.9
1.889	1.050	-13.3	-160.2	-4.4	156.8	-81.0	-4.3
2.020	1.100	-39.3	155.7	-29.6	134.8	-65.5	-23.7
2.155	1.150	-66.7	104.7	-110.9	85.0	-56.8	-50.1
2.295	1.200	-115.7	71.3	-120.8	24.6	-146.3	-98.6
2.439	1.250	-165.8	39.2	-123.3	-7.5	149.5	-159.1
2.585	1.300	166.5	-17.1	-112.4	-35.4	157.7	162.6
2.891	1.400	59.1	-123.2	73.5	-151.2	-115.2	68.5
3.547	1.600	124.4	36.4	-95.0	26.4	83.7	-129.9
4.266	1.800	-30.2	-158.7	98.4	140.8	-64.5	-3.7
5.042	2.000	155.7	-160.8	-27.9	-54.5	166.6	125.0

REC = 59 HEADING = 165. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/HAVENT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.241	.200	1.466E+00	3.781E-02	9.832E-01	4.380E-04	7.132E-03	7.663E-06
.313	.250	4.978E-01	4.023E-02	9.867E-01	1.565E-03	1.438E-02	6.677E-05
.391	.300	1.991E-01	4.086E-02	9.974E-01	6.244E-03	2.666E-02	3.360E-04
.474	.350	9.173E-02	3.539E-02	9.968E-01	2.479E-02	4.633E-02	9.543E-04
.562	.400	4.839E-02	2.821E-02	9.808E-01	1.121E-01	7.705E-02	2.154E-03
.655	.450	2.991E-02	1.634E-02	9.638E-01	4.356E-01	1.182E-01	3.689E-03
.754	.500	2.091E-02	8.066E-03	1.013E+00	2.584E-01	1.724E-01	1.775E-03
.857	.550	1.646E-02	5.947E-03	1.125E+00	1.331E-01	2.333E-01	1.473E-03
.965	.600	1.343E-02	3.470E-03	1.283E+00	8.983E-02	2.915E-01	1.594E-03
1.021	.625	1.194E-02	2.439E-03	1.397E+00	7.078E-02	3.135E-01	1.572E-03
1.078	.650	1.033E-02	1.635E-03	1.498E+00	5.459E-02	3.218E-01	1.512E-03
1.137	.675	8.615E-03	1.024E-03	1.488E+00	4.225E-02	3.094E-01	1.437E-03
1.197	.700	6.879E-03	5.735E-04	1.285E+00	3.266E-02	2.620E-01	1.348E-03
1.253	.725	5.300E-03	2.661E-04	9.198E-01	2.515E-02	2.806E-01	1.246E-03
1.320	.750	3.994E-03	8.433E-05	3.317E-01	1.929E-02	1.393E-01	1.133E-03
1.443	.800	2.080E-03	6.308E-06	7.591E-02	8.304E-03	5.088E-02	6.785E-04
1.593	.850	9.249E-04	8.172E-05	1.562E-04	2.887E-03	1.264E-02	3.126E-04
1.721	.900	3.356E-04	1.390E-04	7.564E-03	1.205E-03	1.077E-03	9.799E-05
1.855	.950	1.073E-04	1.232E-04	7.773E-03	1.149E-03	4.466E-04	2.192E-05
2.014	1.000	6.873E-05	6.894E-05	3.502E-03	1.106E-03	1.458E-03	2.193E-05
2.168	1.050	6.174E-05	2.622E-05	8.026E-04	7.282E-04	1.192E-03	3.047E-05
2.327	1.100	3.955E-05	9.938E-06	2.039E-04	2.945E-04	4.844E-04	2.295E-05
2.491	1.150	1.597E-05	1.145E-05	2.789E-04	1.189E-04	5.994E-05	9.178E-06
2.661	1.200	9.977E-06	1.168E-05	3.442E-04	1.583E-04	7.076E-05	4.344E-06
2.835	1.250	1.780E-05	6.351E-06	1.997E-04	1.739E-04	3.591E-04	5.869E-06
3.014	1.300	1.071E-05	2.871E-06	5.035E-05	1.038E-04	5.011E-04	5.663E-06
3.198	1.400	1.077E-07	5.673E-06	2.295E-04	6.119E-05	2.151E-04	2.928E-06
4.195	1.600	3.415E-08	2.281E-06	4.786E-05	1.476E-05	3.742E-05	1.407E-06
5.087	1.800	4.611E-07	1.293E-06	1.007E-05	4.764E-06	9.280E-06	4.194E-07
6.055	2.000	7.854E-07	2.551E-08	1.100E-06	1.403E-05	6.090E-06	5.528E-07

PHASE (MOTION-WAVEHT)

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.241	.200	8.3	87.5	.2	104.8	-77.0	-117.3
.313	.250	14.4	89.0	.0	122.0	-75.1	-135.0
.391	.300	22.3	89.8	-2	136.4	-73.4	-155.1
.474	.350	32.1	90.3	-5	146.1	-71.7	-171.1
.562	.400	44.0	93.2	-10	162.1	-68.6	-178.3
.655	.450	57.7	104.5	-1.4	-149.1	-64.1	-161.7
.754	.500	71.9	95.2	-1.6	-93.0	-57.6	-150.3
.857	.550	84.7	87.9	-2	-72.9	-48.8	-105.8
.965	.600	95.6	83.3	5.2	-67.1	-37.1	-179.9
1.021	.625	100.8	83.0	10.9	-65.2	-29.1	175.8
1.078	.650	105.8	83.1	19.8	-63.5	-19.3	173.1
1.137	.675	109.9	82.7	31.9	-62.4	-8.1	170.7
1.197	.700	113.0	81.3	47.0	-61.9	3.9	168.3
1.258	.725	114.7	78.1	63.6	-61.9	15.7	165.7
1.320	.750	114.9	69.7	79.9	-62.1	26.5	162.6
1.443	.800	113.0	-77.6	114.0	-71.0	47.8	156.8
1.583	.850	106.8	-102.7	-176.0	-89.5	69.6	148.8
1.721	.900	93.6	-110.6	-22.8	-127.2	102.5	132.9
1.865	.950	61.2	-120.8	-2.7	-167.2	-104.0	87.4
2.014	1.000	14.8	-134.4	6.5	169.6	-76.8	24.7
2.168	1.050	-16.1	-160.4	-2.3	149.9	-62.8	-6.2
2.327	1.100	-41.4	148.3	-53.6	122.6	-54.9	-27.5
2.491	1.150	-74.6	91.9	-103.1	68.1	-39.0	-59.2
2.661	1.200	-139.8	57.8	-112.6	14.3	120.7	-122.1
2.835	1.250	-175.5	23.1	-101.8	-15.3	141.7	-174.5
3.014	1.300	171.4	-33.6	-58.1	-48.1	160.7	149.3
3.198	1.400	22.5	-132.1	66.8	-150.5	-118.3	57.2
4.195	1.600	45.0	36.1	-110.6	33.9	58.7	-127.8
5.087	1.800	-34.7	-156.1	74.9	124.9	-86.0	-19.7
6.055	2.000	140.5	-53.4	-75.3	-56.0	146.3	123.5

REC = 60 HEADING = 165. DEG SHIP SPEED = 25. KNOTS
RAO (MOTION/WAVEHT)**2

HE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.251	.200	1.260E+00	3.226E-02	9.900E-01	4.334E-04	7.609E-03	8.186E-06
.329	.250	4.085E-01	3.518E-02	1.005E+00	1.709E-03	1.438E-02	4.769E-05
.414	.300	1.589E-01	3.465E-02	1.027E+00	7.801E-03	2.571E-02	2.352E-04
.503	.350	7.135E-02	2.966E-02	1.040E+00	3.577E-02	4.535E-02	7.814E-04
.603	.400	3.671E-02	2.282E-02	1.043E+00	2.035E-01	7.589E-02	2.137E-03
.707	.450	2.201E-02	9.773E-03	1.100E+00	3.191E-01	1.174E-01	1.803E-02
.817	.500	1.535E-02	7.344E-03	1.246E+00	1.341E-01	1.720E-01	1.011E-03
.933	.550	1.185E-02	5.184E-03	1.492E+00	8.230E-02	2.348E-01	1.122E-03
1.055	.600	9.193E-03	2.965E-03	1.877E+00	5.311E-02	2.398E-01	1.191E-03
1.180	.625	7.885E-03	2.125E-03	2.047E+00	4.188E-02	2.992E-01	1.185E-03
1.315	.650	6.519E-03	1.451E-03	2.013E+00	3.339E-02	2.825E-01	1.172E-03
1.453	.675	5.203E-03	9.235E-04	1.679E+00	2.635E-02	2.391E-01	1.152E-03
1.591	.700	4.056E-03	5.264E-04	1.148E+00	2.175E-02	1.822E-01	1.126E-03
1.725	.725	3.063E-03	2.464E-04	6.327E-01	1.500E-02	1.255E-01	9.722E-04
1.863	.750	2.285E-03	8.917E-05	2.804E-01	1.033E-02	8.102E-02	7.949E-04
1.997	.800	1.195E-03	1.123E-06	2.478E-02	4.233E-03	2.745E-02	4.620E-04
2.125	.850	5.221E-04	3.794E-05	3.766E-04	1.337E-03	4.881E-03	1.979E-04
2.253	.900	1.861E-04	7.201E-05	4.399E-03	6.463E-04	6.891E-05	5.301E-05
2.375	.950	7.205E-05	6.722E-05	3.517E-03	7.034E-04	4.321E-04	9.945E-06
2.493	1.000	4.929E-05	3.951E-05	1.733E-03	6.919E-04	7.531E-04	1.291E-05
2.603	1.050	3.908E-05	1.300E-05	3.118E-04	4.479E-04	6.050E-04	1.796E-05
2.703	1.100	2.106E-05	6.074E-06	6.030E-05	1.842E-04	3.071E-04	1.208E-05
2.827	1.150	5.775E-06	8.967E-06	2.218E-04	9.708E-05	7.778E-05	4.966E-06
2.923	1.200	4.019E-06	7.998E-06	3.445E-04	1.255E-04	1.157E-04	3.198E-06
3.025	1.250	1.168E-05	4.859E-06	2.419E-04	1.217E-04	4.322E-04	4.565E-06
3.123	1.300	1.348E-05	4.036E-06	7.006E-05	7.846E-05	4.596E-04	4.687E-06
3.215	1.400	8.117E-06	4.427E-06	9.119E-05	5.116E-05	5.665E-05	2.607E-06
3.303	1.500	1.861E-06	1.788E-06	1.513E-05	9.238E-06	8.779E-06	9.878E-07
3.385	1.600	1.153E-07	1.200E-06	4.688E-06	3.235E-06	2.330E-06	3.000E-07
3.463	1.700	5.076E-07	9.664E-09	6.443E-07	9.673E-06	2.989E-06	4.213E-07

PHASE (MOTION-WAVEVENT)

WE	WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.251	.200	.200	8.3	87.0	.2	105.9	-72.4	-64.1
.329	.250	.250	14.4	89.0	.0	127.8	-70.5	-103.6
.414	.300	.300	22.3	89.9	.1	141.4	-69.4	-148.4
.505	.350	.350	32.2	91.0	-.3	152.0	-68.0	-169.3
.603	.400	.400	44.2	97.1	-.6	178.2	-64.9	-171.9
.707	.450	.450	58.5	101.9	-.5	-110.9	-59.6	-142.4
.817	.500	.500	73.1	90.9	.8	-75.5	-51.9	-152.9
.933	.550	.550	86.4	86.0	5.5	-64.3	-41.3	-169.6
1.056	.600	.600	98.9	84.9	17.8	-59.4	-25.5	-179.3
1.120	.625	.625	104.7	84.9	29.0	-57.3	-15.0	178.1
1.186	.650	.650	109.4	84.2	43.7	-55.7	-3.2	175.8
1.253	.675	.675	112.3	82.4	60.9	-54.5	9.0	173.5
1.321	.700	.700	114.6	78.8	78.8	-53.8	20.5	170.9
1.391	.725	.725	115.7	76.3	98.0	-55.0	32.0	168.8
1.463	.750	.750	115.7	72.8	118.3	-57.3	42.7	166.7
1.511	.800	.800	112.8	22.8	150.7	-65.6	63.0	162.0
1.566	.850	.850	104.3	-99.8	-27.4	-88.4	83.8	154.0
1.627	.900	.900	86.0	-110.5	3.2	-134.4	115.5	137.0
1.694	.950	.950	51.7	-121.4	10.9	-172.8	-74.1	86.1
1.768	1.000	1.000	13.5	-137.0	8.5	164.0	-59.4	16.4
1.848	1.050	1.050	-14.4	-156.3	-6.5	144.1	-50.1	-12.1
1.934	1.100	1.100	-35.3	127.4	-76.2	114.7	-33.8	-36.4
2.027	1.150	1.150	-68.8	81.3	-113.9	59.1	12.3	-74.6
2.125	1.200	1.200	-145.8	57.6	-109.9	13.0	96.1	-134.7
2.231	1.250	1.250	178.1	11.7	-95.6	-18.5	133.0	177.1
2.343	1.300	1.300	169.3	-42.8	-56.5	-55.0	157.9	140.0
2.465	1.400	1.400	80.9	-133.3	65.2	-146.1	-126.3	58.4
2.598	1.500	1.500	-3.4	39.8	-112.6	34.7	29.7	-123.3
2.746	1.600	1.600	-45.1	-157.4	50.2	127.0	-128.1	-14.4
2.909	1.800	1.800	137.3	-50.6	-92.5	-58.9	135.1	122.0

REC = 61	HEADING = 100. DEG	SHIP SPEED = 5. KNOTS			
RAO	(MOTION/NAVEHT)**2				
WE	SURGE	SWAY	HEAVE		
W	ROLL	PITCH	YAW		
211	2.528E+00	0.	9.856E-01	5.783E-03	0.
266	9.495E-01	0.	9.674E-01	0.	1.931E-02
324	4.223E-01	0.	9.473E-01	0.	2.578E-02
360	2.542E-01	0.	9.118E-01	0.	4.791E-02
442	1.554E-01	0.	8.494E-01	0.	7.835E-02
503	8.409E-02	0.	7.555E-01	0.	1.182E-01
566	6.463E-02	0.	6.324E-01	0.	1.624E-01
623	5.463E-02	0.	4.931E-01	0.	2.010E-01
695	4.866E-02	0.	3.779E-01	0.	2.370E-01
728	4.560E-02	0.	3.247E-01	0.	2.492E-01
761	4.222E-02	0.	2.765E-01	0.	2.598E-01
795	3.442E-02	0.	2.340E-01	0.	2.598E-01
829	3.473E-02	0.	1.972E-01	0.	2.378E-01
863	2.955E-02	0.	1.654E-01	0.	2.688E-01
893	2.470E-02	0.	1.370E-01	0.	1.875E-01
963	1.515E-02	0.	9.615E-02	0.	1.130E-01
1040	7.033E-03	0.	5.115E-02	0.	4.532E-02
1113	2.459E-03	0.	4.966E-02	0.	3.991E-03
1187	6.432E-04	0.	8.308E-02	0.	3.873E-03
1263	3.936E-04	0.	8.518E-02	0.	1.726E-02
1333	4.248E-04	0.	4.117E-02	0.	2.442E-02
1413	3.522E-04	0.	6.293E-03	0.	1.266E-02
1497	1.785E-04	0.	1.527E-03	0.	3.614E-03
1578	8.312E-05	0.	5.692E-03	0.	1.045E-04
1660	6.512E-05	0.	4.505E-03	0.	9.693E-04
1744	7.139E-05	0.	9.130E-04	0.	1.897E-03
1915	2.465E-05	0.	6.379E-04	0.	1.599E-04
2272	4.450E-06	0.	1.176E-05	0.	1.512E-05
2651	1.035E-06	0.	9.337E-05	0.	4.120E-04
2900	1.542E-06	0.	3.659E-04	0.	8.44E-04

PHASE (MOTION-WAVEHT)

WE	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.211	.200	3.9	0.0	.2	0.0	-89.1	0.0
.255	.250	15.2	0.0	.2	0.0	-86.9	0.0
.324	.300	23.4	0.0	.0	0.0	-84.8	0.0
.382	.350	33.7	0.0	-.2	0.0	-82.8	0.0
.442	.400	45.8	0.0	-.4	0.0	-80.5	0.0
.503	.450	59.1	0.0	-.8	0.0	-77.4	0.0
.565	.500	72.3	0.0	-1.7	0.0	-73.7	0.0
.629	.550	83.7	0.0	-3.5	0.0	-69.2	0.0
.695	.600	92.9	0.0	-6.5	0.0	-64.0	0.0
.728	.625	96.5	0.0	-8.7	0.0	-61.0	0.0
.761	.650	99.5	0.0	-11.5	0.0	-57.7	0.0
.795	.675	101.9	0.0	-14.8	0.0	-54.0	0.0
.829	.700	103.8	0.0	-18.5	0.0	-50.0	0.0
.863	.725	105.3	0.0	-22.5	0.0	-45.5	0.0
.898	.750	106.2	0.0	-26.8	0.0	-40.7	0.0
.968	.800	106.3	0.0	-37.0	0.0	-29.7	0.0
1.040	.850	103.3	0.0	-54.4	0.0	-15.2	0.0
1.113	.900	92.3	0.0	-82.4	0.0	2.2	0.0
1.187	.950	61.2	0.0	-90.9	0.0	-158.0	0.0
1.263	1.000	10.5	0.0	-80.5	0.0	-141.0	0.0
1.339	1.050	-24.6	0.0	-66.6	0.0	-125.9	0.0
1.418	1.100	-49.5	0.0	-62.3	0.0	-110.4	0.0
1.497	1.150	-77.7	0.0	-159.2	0.0	-93.1	0.0
1.578	1.200	-120.3	0.0	-172.8	0.0	-36.7	0.0
1.660	1.250	-172.4	0.0	-165.7	0.0	89.9	0.0
1.744	1.300	147.5	0.0	-154.8	0.0	108.2	0.0
1.915	1.400	79.0	0.0	26.0	0.0	157.0	0.0
2.272	1.600	-149.6	0.0	-121.3	0.0	54.3	0.0
2.651	1.800	-1.9	0.0	145.9	0.0	-16.2	0.0
3.050	2.000	-134.5	0.0	63.7	0.0	-120.5	0.0

REC = 62 HEADING = 180. DEG SHIP SPEED = 10. KNOTS
RAO (MOTION/NAVEHT)**2

WE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	2.683E+00 0.		9.815E-01 0.		6.378E-03 0.	
.283	.250	7.489E-01 0.		9.668E-01 0.		1.436E-02 0.	
.347	.300	3.197E-01 0.		9.569E-01 0.		2.756E-02 0.	
.414	.350	1.569E-01 0.		9.295E-01 0.		4.900E-02 0.	
.484	.400	8.810E-02 0.		8.769E-01 0.		8.074E-02 0.	
.556	.450	5.714E-02 0.		7.957E-01 0.		1.223E-01 0.	
.631	.500	4.259E-02 0.		6.905E-01 0.		1.680E-01 0.	
.709	.550	3.346E-02 0.		6.132E-01 0.		2.212E-01 0.	
.783	.600	3.050E-02 0.		5.471E-01 0.		2.689E-01 0.	
.830	.625	2.815E-02 0.		5.200E-01 0.		2.857E-01 0.	
.872	.650	2.653E-02 0.		4.951E-01 0.		2.946E-01 0.	
.914	.675	2.499E-02 0.		4.680E-01 0.		2.930E-01 0.	
.957	.700	1.992E-02 0.		4.725E-01 0.		2.790E-01 0.	
1.001	.725	1.672E-02 0.		3.906E-01 0.		2.593E-01 0.	
1.045	.750	1.338E-02 0.		3.387E-01 0.		2.223E-01 0.	
1.136	.800	7.246E-03 0.		1.680E-01 0.		1.259E-01 0.	
1.229	.850	3.071E-03 0.		2.904E-02 0.		3.875E-02 0.	
1.325	.900	1.272E-03 0.		3.079E-02 0.		3.563E-03 0.	
1.424	.950	2.772E-04 0.		5.253E-02 0.		1.374E-03 0.	
1.525	1.000	1.438E-04 0.		3.340E-02 0.		6.244E-03 0.	
1.623	1.050	1.862E-04 0.		9.466E-03 0.		6.865E-03 0.	
1.735	1.100	1.733E-04 0.		5.661E-04 0.		3.671E-03 0.	
1.844	1.150	6.895E-05 0.		9.201E-04 0.		7.602E-04 0.	
1.956	1.200	2.436E-05 0.		1.548E-03 0.		2.995E-05 0.	
2.071	1.250	2.999E-05 0.		8.056E-04 0.		4.153E-04 0.	
2.183	1.300	3.946E-05 0.		6.371E-05 0.		5.310E-04 0.	
2.429	1.400	1.047E-05 0.		2.830E-04 0.		4.993E-06 0.	
2.944	1.600	8.631E-06 0.		2.512E-04 0.		3.581E-04 0.	
3.502	1.800	1.616E-05 0.		2.287E-04 0.		6.736E-04 0.	
4.100	2.000	2.567E-06 0.		7.042E-05 0.		1.532E-04 0.	

PHASE (MOTION-AVEHT)

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.221	.200	8.9	0.0	.3	0.0	-85.4	0.0
.283	.250	15.1	0.0	.2	0.0	-83.4	0.0
.347	.300	23.4	0.0	.1	0.0	-81.2	0.0
.414	.350	33.6	0.0	.4	0.0	-79.1	0.0
.484	.400	45.8	0.0	.7	0.0	-76.5	0.0
.556	.450	59.2	0.0	1.4	0.0	-72.8	0.0
.631	.500	72.5	0.0	2.6	0.0	-68.2	0.0
.709	.550	84.5	0.0	4.5	0.0	-62.6	0.0
.789	.600	94.0	0.0	6.8	0.0	-55.4	0.0
.871	.625	97.8	0.0	7.8	0.0	-51.1	0.0
.914	.650	101.1	0.0	8.2	0.0	-46.3	0.0
.957	.675	103.9	0.0	8.1	0.0	-40.9	0.0
1.001	.700	106.2	0.0	8.9	0.0	-34.9	0.0
1.045	.725	108.3	0.0	4.4	0.0	-27.8	0.0
1.136	.800	110.0	0.0	1.1	0.0	-19.1	0.0
1.229	.850	111.2	0.0	12.8	0.0	1.6	0.0
1.325	.900	106.5	0.0	5.8	0.0	24.2	0.0
1.424	.950	92.7	0.0	50.4	0.0	50.8	0.0
1.525	1.000	61.2	0.0	-46.6	0.0	-147.2	0.0
1.629	1.050	8.3	0.0	-32.3	0.0	-118.8	0.0
1.735	1.100	-31.3	0.0	-22.2	0.0	-101.8	0.0
1.844	1.150	-54.9	0.0	-42.3	0.0	-84.4	0.0
1.956	1.200	-78.5	0.0	-139.5	0.0	-63.8	0.0
2.071	1.250	-126.0	0.0	-142.5	0.0	51.1	0.0
2.183	1.300	175.0	0.0	-137.1	0.0	118.1	0.0
2.299	1.350	147.1	0.0	-139.0	0.0	135.3	0.0
2.429	1.400	57.3	0.0	66.5	0.0	-107.2	0.0
2.544	1.450	170.5	0.0	-74.2	0.0	124.0	0.0
2.652	1.500	-3.0	0.0	161.0	0.0	-12.7	0.0
2.760	1.550	-155.1	0.0	56.5	0.0	-126.9	0.0

REC = 53 HEADING = 180. DEG SHIP SPEED = 15. KNOTS
RAO (MOTION/WAVEHT)**2

HE	M	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.232	.200	1.731E+00 0.	9.803E-01 0.	9.737E-01 0.	6.963E-03 0.	1.491E-02 0.	2.797E-02 0.
.233	.250	5.984E-01 0.	9.726E-01 0.	9.562E-01 0.	4.955E-02 0.	8.201E-02 0.	1.244E-01 0.
.371	.300	2.464E-01 0.	9.195E-01 0.	8.574E-01 0.	1.771E-01 0.	2.378E-01 0.	2.926E-01 0.
.445	.350	1.169E-01 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.	3.174E-01 0.	3.176E-01 0.
.525	.400	6.368E-02 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.	2.977E-01 0.	2.547E-01 0.
.539	.450	4.908E-02 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.	1.941E-01 0.	7.834E-02 0.
.607	.500	2.942E-02 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.	1.829E-02 0.	1.410E-03 0.
.783	.550	2.390E-02 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.	1.12E-03 0.	3.017E-03 0.
.884	.600	2.005E-02 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.	2.675E-03 0.	1.172E-03 0.
.933	.625	1.820E-02 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.	1.260E-04 0.	4.239E-05 0.
.983	.650	1.623E-02 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.	4.239E-05 0.	3.205E-04 0.
1.034	.675	1.402E-02 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.	3.960E-04 0.	1.822E-04 0.
1.086	.700	1.165E-02 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.	2.455E-04 0.	2.455E-04 0.
1.133	.725	9.190E-03 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.	7.910E-05 0.	7.910E-05 0.
1.183	.750	6.904E-03 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.	6.408E-06 0.	2.127E-06 0.
1.234	.800	3.454E-03 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		
1.413	.850	1.433E-03 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.		
1.533	.900	4.734E-04 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		
1.561	.950	1.262E-04 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.		
1.783	1.000	8.315E-05 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		
1.913	1.050	9.874E-05 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.		
2.053	1.100	7.166E-05 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		
2.192	1.150	2.934E-05 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.		
2.334	1.200	1.921E-05 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		
2.481	1.250	2.459E-05 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.		
2.631	1.300	1.931E-05 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		
2.944	1.400	5.385E-06 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.		
3.615	1.600	4.897E-06 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		
4.353	1.800	4.427E-06 0.	8.516E-01 0.	8.694E-01 0.	3.176E-01 0.		
5.153	2.000	1.532E-06 0.	8.213E-01 0.	8.200E-01 0.	3.105E-01 0.		

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.232	.230	8.8	0.0	.3	0.0	-81.4	0.0
.299	.250	15.1	0.0	.1	0.0	-79.4	0.0
.271	.300	23.3	0.0	-.2	0.0	-77.4	0.0
.435	.350	33.6	0.0	-.5	0.0	-75.4	0.0
.566	.400	45.8	0.0	-1.0	0.0	-72.4	0.0
.609	.450	53.4	0.0	-1.8	0.0	-68.1	0.0
.697	.500	73.4	0.0	-2.8	0.0	-62.6	0.0
.785	.550	85.7	0.0	-3.7	0.0	-55.2	0.0
.834	.600	95.7	0.0	-2.7	0.0	-45.5	0.0
.933	.625	93.9	0.0	-.7	0.0	-39.7	0.0
.983	.650	103.6	0.0	2.8	0.0	-38.0	0.0
1.034	.675	107.4	0.0	8.8	0.0	-24.3	0.0
1.085	.700	110.7	0.0	17.7	0.0	-14.2	0.0
1.139	.725	113.2	0.0	29.5	0.0	-2.8	0.0
1.193	.750	114.5	0.0	43.3	0.0	9.1	0.0
1.304	.800	112.7	0.0	69.9	0.0	31.6	0.0
1.419	.850	105.9	0.0	37.9	0.0	54.8	0.0
1.533	.900	91.3	0.0	-35.5	0.0	95.4	0.0
1.661	.950	63.0	0.0	-22.0	0.0	-135.0	0.0
1.788	1.000	5.3	0.0	-7.8	0.0	-95.6	0.0
1.913	1.050	-26.8	0.0	-5.3	0.0	-75.8	0.0
2.053	1.100	-47.2	0.0	-72.5	0.0	-60.9	0.0
2.192	1.150	-81.6	0.0	-118.6	0.0	-54.8	0.0
2.334	1.200	-136.6	0.0	-123.0	0.0	155.5	0.0
2.481	1.250	-179.3	0.0	-122.9	0.0	150.4	0.0
2.631	1.300	157.5	0.0	55.5	0.0	165.7	0.0
2.944	1.400	22.5	0.0	81.6	0.0	-77.7	0.0
3.615	1.500	153.1	0.0	-76.5	0.0	119.5	0.0
4.353	1.600	-21.3	0.0	125.7	0.0	-31.1	0.0
5.150	2.000	170.5	0.0	42.4	0.0	-155.5	0.0

REC = 54 HEADING = 180. DEG SHIP SPEED = 20. KNOTS
RAO (MOTION/AVEHT)**2

WE	M	SURGE	SNAY	HEAVE	ROLL	PITCH	YAW
.242	.200	1.451E+00 0.		9.828E-01 0.		7.515E-03 0.	
.316	.250	4.843E-01 0.		9.862E-01 0.		1.520E-02 0.	
.394	.300	1.933E-01 0.		9.956E-01 0.		2.792E-02 0.	
.479	.350	8.822E-02 0.		9.930E-01 0.		4.938E-02 0.	
.563	.400	4.716E-02 0.		9.743E-01 0.		8.202E-02 0.	
.663	.450	2.912E-02 0.		9.595E-01 0.		1.255E-01 0.	
.762	.500	2.055E-02 0.		1.012E+00 0.		1.822E-01 0.	
.868	.550	1.655E-02 0.		1.128E+00 0.		2.463E-01 0.	
.978	.600	1.355E-02 0.		1.281E+00 0.		2.975E-01 0.	
1.035	.625	1.194E-02 0.		1.403E+00 0.		3.195E-01 0.	
1.094	.650	1.022E-02 0.		1.478E+00 0.		3.210E-01 0.	
1.153	.675	8.376E-03 0.		1.413E+00 0.		2.954E-01 0.	
1.214	.700	6.569E-03 0.		1.149E+00 0.		2.430E-01 0.	
1.277	.725	4.900E-03 0.		7.577E-01 0.		1.781E-01 0.	
1.340	.750	3.682E-03 0.		3.959E-01 0.		1.183E-01 0.	
1.472	.800	1.833E-03 0.		3.857E-02 0.		3.909E-02 0.	
1.508	.850	7.638E-04 0.		1.004E-03 0.		8.008E-03 0.	
1.750	.900	2.506E-04 0.		9.295E-03 0.		3.034E-04 0.	
1.898	.950	8.639E-05 0.		6.963E-03 0.		8.845E-04 0.	
2.050	1.000	7.074E-05 0.		2.504E-03 0.		1.618E-03 0.	
2.207	1.050	5.919E-05 0.		4.446E-04 0.		1.022E-03 0.	
2.370	1.100	3.332E-05 0.		2.091E-04 0.		3.055E-04 0.	
2.538	1.150	1.208E-05 0.		3.365E-04 0.		7.161E-06 0.	
2.711	1.200	1.474E-05 0.		2.982E-04 0.		1.839E-04 0.	
2.891	1.250	2.048E-05 0.		1.217E-04 0.		4.576E-04 0.	
3.074	1.300	1.834E-05 0.		3.663E-05 0.		4.741E-04 0.	
3.458	1.400	2.533E-06 0.		2.440E-04 0.		2.137E-04 0.	
4.287	1.600	1.147E-06 0.		4.789E-05 0.		3.799E-05 0.	
5.202	1.800	1.970E-06 0.		4.177E-06 0.		1.466E-05 0.	
6.198	2.000	8.554E-07 0.		5.368E-07 0.		5.420E-06 0.	

PHASE (MOTION-AVEHT)

ME	W	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.242	.200	8.8	0.0	.2	0.0	-77.2	0.0
.316	.250	15.1	0.0	.0	0.0	-75.2	0.0
.394	.300	23.3	0.0	-.3	0.0	-73.4	0.0
.473	.350	33.6	0.0	-.5	0.0	-71.5	0.0
.563	.400	46.0	0.0	-1.0	0.0	-68.3	0.0
.563	.450	60.1	0.0	-1.5	0.0	-63.5	0.0
.762	.500	74.5	0.0	-1.7	0.0	-56.7	0.0
.853	.550	87.3	0.0	.0	0.0	-47.4	0.0
.973	.600	97.9	0.0	5.2	0.0	-35.1	0.0
1.035	.625	103.2	0.0	12.8	0.0	-26.3	0.0
1.094	.650	107.9	0.0	22.7	0.0	-16.0	0.0
1.151	.675	111.8	0.0	36.0	0.0	-4.3	0.0
1.214	.700	114.4	0.0	52.0	0.0	8.0	0.0
1.277	.725	115.6	0.0	69.0	0.0	19.9	0.0
1.341	.750	115.4	0.0	85.7	0.0	30.8	0.0
1.472	.800	112.6	0.0	121.3	0.0	52.8	0.0
1.603	.850	105.1	0.0	-52.4	0.0	76.6	0.0
1.751	.900	87.7	0.0	-16.3	0.0	130.0	0.0
1.898	.950	43.1	0.0	.3	0.0	-93.9	0.0
2.051	1.000	3.2	0.0	7.1	0.0	-72.5	0.0
2.207	1.050	-24.6	0.0	-11.8	0.0	-59.6	0.0
2.370	1.100	-52.0	0.0	-74.9	0.0	-53.7	0.0
2.533	1.150	-94.5	0.0	-110.0	0.0	-1.6	0.0
2.711	1.200	-157.0	0.0	-110.8	0.0	132.6	0.0
2.891	1.250	178.0	0.0	-91.3	0.0	149.6	0.0
3.074	1.300	169.0	0.0	-10.9	0.0	171.7	0.0
3.453	1.400	.1	0.0	79.1	0.0	-85.2	0.0
4.287	1.600	145.7	0.0	-97.6	0.0	101.3	0.0
5.202	1.800	-26.3	0.0	92.6	0.0	-45.8	0.0
6.198	2.000	156.0	0.0	22.1	0.0	-179.3	0.0

REC = 65 HEADING = 180. DEG SHIP SPEED = 25. KNOTS
RAO (NOTION/WAVEHT)**2

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.252	.200	1.225E+00 0.		9.898E-01 0.		7.986E-03 0.	
.332	.250	3.954E-01 0.		1.005E+00 0.		1.516E-02 0.	
.413	.300	1.532E-01 0.		1.066E+00 0.		2.732E-02 0.	
.511	.350	6.875E-02 0.		1.038E+00 0.		4.838E-02 0.	
.610	.400	3.562E-02 0.		1.040E+00 0.		8.080E-02 0.	
.715	.450	2.160E-02 0.		1.104E+00 0.		1.248E-01 0.	
.828	.500	1.525E-02 0.		1.261E+00 0.		1.821E-01 0.	
.947	.550	1.184E-02 0.		1.515E+00 0.		2.454E-01 0.	
1.072	.600	9.159E-03 0.		1.915E+00 0.		2.976E-01 0.	
1.138	.625	7.766E-03 0.		2.041E+00 0.		3.000E-01 0.	
1.204	.650	6.332E-03 0.		1.919E+00 0.		2.737E-01 0.	
1.273	.675	4.985E-03 0.		1.497E+00 0.		2.227E-01 0.	
1.343	.700	3.828E-03 0.		9.459E-01 0.		1.629E-01 0.	
1.415	.725	2.854E-03 0.		4.745E-01 0.		1.082E-01 0.	
1.488	.750	2.098E-03 0.		1.890E-01 0.		6.730E-02 0.	
1.640	.800	1.056E-03 0.		1.035E-02 0.		2.059E-02 0.	
1.793	.850	4.261E-04 0.		1.633E-03 0.		2.596E-03 0.	
1.963	.900	1.435E-04 0.		4.790E-03 0.		2.232E-05 0.	
2.134	.950	6.225E-05 0.		2.960E-03 0.		6.366E-04 0.	
2.312	1.000	4.773E-05 0.		9.665E-04 0.		7.640E-04 0.	
2.497	1.050	3.594E-05 0.		1.553E-04 0.		5.411E-04 0.	
2.683	1.100	1.505E-05 0.		9.968E-05 0.		1.952E-04 0.	
2.866	1.150	4.049E-06 0.		2.913E-04 0.		5.861E-05 0.	
3.090	1.200	7.185E-06 0.		3.325E-04 0.		1.958E-04 0.	
3.301	1.250	1.473E-05 0.		1.638E-04 0.		4.288E-04 0.	
3.518	1.300	1.039E-05 0.		4.172E-05 0.		3.667E-04 0.	
3.972	1.400	8.074E-07 0.		9.289E-05 0.		4.393E-05 0.	
4.959	1.600	4.007E-07 0.		1.429E-05 0.		4.862E-06 0.	
6.053	1.800	9.841E-07 0.		3.251E-06 0.		3.921E-06 0.	
7.248	2.000	6.165E-07 0.		1.922E-07 0.		3.035E-06 0.	

PHASE (MOTION-WAVEHT)

WE	H	SURGE	SWAY	HEAVE	ROLL	PITCH	YAW
.252	.200	8.7	0.0	.2	0.0	-72.6	0.0
.332	.250	15.1	0.0	-0	0.0	-70.6	0.0
.419	.300	23.3	0.0	-2	0.0	-69.5	0.0
.511	.350	33.6	0.0	-4	0.0	-67.9	0.0
.610	.400	46.2	0.0	-6	0.0	-64.5	0.0
.715	.450	61.0	0.0	-5	0.0	-58.9	0.0
.828	.500	75.7	0.0	1.0	0.0	-50.8	0.0
.947	.550	89.0	0.0	6.4	0.0	-39.6	0.0
1.072	.600	101.5	0.0	20.4	0.0	-22.6	0.0
1.193	.625	107.0	0.0	32.8	0.0	-11.4	0.0
1.294	.650	111.4	0.0	48.7	0.0	.8	0.0
1.273	.675	114.3	0.0	66.7	0.0	13.2	0.0
1.343	.700	115.8	0.0	85.2	0.0	24.9	0.0
1.415	.725	116.5	0.0	104.8	0.0	36.4	0.0
1.488	.750	116.0	0.0	123.0	0.0	47.2	0.0
1.640	.800	112.2	0.0	160.6	0.0	68.2	0.0
1.733	.850	101.6	0.0	-13.5	0.0	90.4	0.0
1.963	.900	79.2	0.0	5.5	0.0	-127.1	0.0
2.114	.950	49.2	0.0	11.2	0.0	-70.4	0.0
2.312	1.000	3.6	0.0	5.6	0.0	-56.7	0.0
2.497	1.050	-22.0	0.0	-17.0	0.0	-46.5	0.0
2.688	1.100	-45.1	0.0	-103.7	0.0	-23.3	0.0
2.886	1.150	-94.4	0.0	-113.9	0.0	47.7	0.0
3.093	1.200	-163.9	0.0	-105.1	0.0	115.7	0.0
3.301	1.250	173.8	0.0	-84.5	0.0	144.2	0.0
3.513	1.300	160.5	0.0	-17.9	0.0	170.6	0.0
3.972	1.400	3.6	0.0	72.4	0.0	-91.7	0.0
4.959	1.600	150.2	0.0	-108.3	0.0	78.2	0.0
6.053	1.800	-33.9	0.0	57.6	0.0	-71.7	0.0
7.249	2.000	151.7	0.0	8.4	0.0	167.2	0.0

ND OF DATA